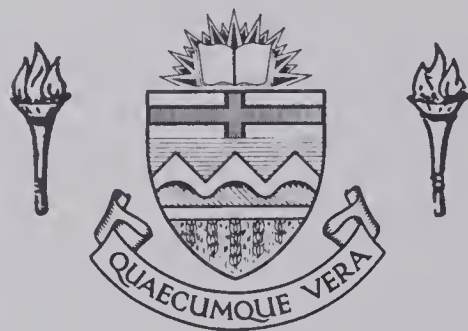


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A COMPARISON OF ATTITUDE CHANGE BETWEEN
M.B.A. STUDENTS AT THE UNIVERSITY OF ALBERTA
AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

by



ROBERT MARTIN GARRETT

A THESIS

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The undersigned certify that they have read,
and recommend to the Faculty of Graduate Studies for
acceptance, a thesis entitled "A Comparison of Attitude
Change Between M.B.A. Students at the University of
Alberta and the Massachusetts Institute of Technology",
submitted by Robert Martin Garrett in partial fulfilment
of the requirements for the degree of Master of Business
Administration.

ABSTRACT

The professional school is a socialising institution in which the students acquire knowledge, skills and values which will help them fulfil the requirements of their future professional role. In the business school there is much emphasis placed on the knowledge and skill components of business education. Little attention, however, has been paid to the extent that values and beliefs of the students change during their study.

This research examines empirically, in a replication of a study performed at M.I.T., the amount of change that occurs in certain attitudes of the M.B.A. students at the University of Alberta and relates this to the attitudes of the Business Administration and Commerce faculty and a group of managers. Attitude questionnaires, designed at M.I.T., were used to measure attitudes, and the results obtained were compared to the results obtained at M.I.T.

This study confirms the findings at M.I.T.; that the M.B.A. students' attitudes change during business education and that the direction of this change is away from the attitudes prevailing in industry and towards the attitudes held by the business school faculty. In addition, differences in attitude were found between the corresponding groups of M.B.A. students, faculty and managers at the University of Alberta and at M.I.T.

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CHAPTER I

THEORETICAL FRAMEWORK OF THE STUDY

Introduction

The purpose of this paper is to empirically determine the extent of attitude change, of students, during the Master of Business Administration program at the University of Alberta. This research is a replication of the study conducted by Edgar H. Schein, at the Massachusetts Institute of Technology (M.I.T.).¹ The attitude changes, of the M.B.A. students at the University of Alberta and at M.I.T., are compared, in order to verify the findings of Schein's study.

In addition to comparing attitude changes of the M.B.A. students, this study will also compare the values and beliefs of students, faculty, and executives from both the University of Alberta and M.I.T. The data obtained from this study and from the study conducted by Schein will be the basis of comparison.

This chapter will discuss the socialisation process in the business school setting, and the manner in which individuals are trained for the roles, they will have to assume, in society as administrators. The final section will review some attempts that have been made, in previous studies, to measure the change in attitudes and values that have occurred in professional schools.

¹Edgar H. Schein, "Attitude Change During Management Education", Administrative Science Quarterly, Vol. 11, Number 4, (March 1967), pp. 601-628.

Socialisation of the Individual

Socialisation is the process through which individuals are inducted into their society. It is the development of the attitudes, values, skills and behavior patterns, which are the essential pre-requisites of future role performance.² There are several agencies of socialisation which perform this task of preparing the individual for his adult role. The family, informal peer groups, churches, and other organisations, all contribute in different ways in moulding individual behavior and personality. Through these different agencies, society provides a set of values and expectations that determines the individual's character, his ethical beliefs and his ideas about progress, success and failure.³

Socialisation, then, is the process by which individuals are fitted for their roles in society. Katz and Kahn view socialisation through role theory. It is a continuing cyclical process of role sending, by means of which, the individual is informed about the acceptability of his role behavior, and corrected as necessary.⁴ Most of what is learned throughout childhood is through interpersonal relationships, and the correction of deviant role behavior is controlled by various systems of rewards and punishments.

²Talcott Parsons, Social Structure & Personality (London: Collier-MacMillan Ltd., 1964), p. 130.

³Robert Presthus, The Organisational Society (New York: Alfred A. Knopf, Inc., 1962), p. 7.

⁴Daniel Katz and Robert L. Kahn, The Social Psychology of Organisations (New York: John Wiley & Sons, Inc., 1966), p. 172.

Behavior is determined by an individual's interaction with others and as a result of his perception of himself in relation to others. In this manner the individual builds up a repertoire of different roles, which permits him to interact acceptably with others in a variety of situations. These roles eventually are made part of the person and become internalised.⁵

Brim suggests that each individual looks to a certain set of persons for reference as to the correct behavior for a given situation, and will be influenced, in setting his beliefs and values, by this 'reference set'. The fundamental question is the degree to which the members of an individual's reference set are those people in his immediate environment, with whom he engages in daily interaction.⁶

Socialisation after Childhood

When an individual reaches adulthood he has developed several different modes of behavior for different roles, and has internalised certain beliefs and values about society and his position in it. At this stage, further socialisation might not be necessary if we lived in a static society, and could foresee all the eventualities that might occur, throughout an individual's lifetime. However, we live in a society of rapid technological change and high geographical and social mobility, which render inadequate much childhood

⁵Orville G. Brim and Staton Wheeler, Socialisation After Childhood: Two Essays (New York: John Wiley & Sons, Inc., 1966), p. 12.

⁶Ibid., p. 16.

learning.⁷ As society changes its expectations and demands of the individual, it is necessary for the individual to modify the roles to which he is accustomed.

Some roles in our society require such specialised knowledge and skills, that they cannot be handled by the normal socialising agencies. These are termed "the professions", and require a special kind of training, which is usually the function of a professional school. At the professional school the individual learns the skills, knowledge and values, which will enable him to cope with the particular demands of his profession.⁸

The focus of this study will be on the business school, and how it teaches the individual the necessary role behavior, he will be expected to show, in his future career. In particular, business schools, which prepare individuals for management roles, will be analysed. The socialisation process, that takes place in a professional school, is needed by society, and involves the kind of training the individual is not expected to have learned previously.

Socialisation in the Business School

Learning a professional role is a process of acquiring (i) a certain body of knowledge, (ii) skills in implementing this knowledge, and (iii) the attitudes and values that define how and when and for what ends the knowledge and skills are to be used.⁹ Much emphasis

⁷Ibid., p. 19.

⁸Edgar H. Schein, op. cit.

⁹Loc. cit.

is placed in the professional school on the knowledge and skill components of the education process. However, equally important for the individual in his future professional role, is that he adopt the necessary values that others expect of him in his professional role. Individuals, who have completed business school, should show increased skill, a better knowledge of when to use the skills, and changed attitudes towards when and how to use their acquired knowledge and skills.

Business education may take two forms. Firstly, there is the business school, which prepares students for managerial roles, which they will be expected to fill in the future. Secondly, there are management development programs, which take managerial personnel from their occupational roles, and attempt to change them, in such a fashion as to make them more suitable for their roles.

In evaluating both management development programs and business school programs, much attention has been given to the knowledge acquired and the ability of individuals to implement this knowledge in their professional roles. However, little work seems to have been done in determining the effect of these programs on students' attitudes towards business and management. Schein states: "One must ascertain what attitudes and values the student acquires, when in the educational process they are acquired and how they are learned."¹⁰ Schein also argues that the development of appropriate attitudes requires a certain amount of individual change. However, individuals undertaking a management education program have reached adulthood, and have, therefore, internalised many attitudes and values through

¹⁰Loc. cit.

other socialising agencies in their earlier life. The changing of an individual's attitudes may be a difficult task, and there is no guarantee that the change will be permanent. Schein sees the process of changing attitudes as involving three phases.¹¹

(1) Unfreezing. This phase involves the removal of all supports for old attitudes from the individual. This also means, removing the individual from any environment, which will not allow him freedom to change his attitudes. Thus, if an individual embarks on a management education program, while maintaining his position in a company, it is unlikely he will undergo the process of changing his attitudes and values, when there is constant reinforcement and reminders of the attitudes, he has held in the past, at his work environment.

(2) Changing. This phase may take place in either of two ways. An individual, once he is placed in a new environment, looks to another person for the appropriate set of values and attitudes, which will be acceptable in the new environment. This process of identification may involve the individual identifying with the teacher, or with other students. It involves accepting the attitudes of others, who are more familiar with the new environment.

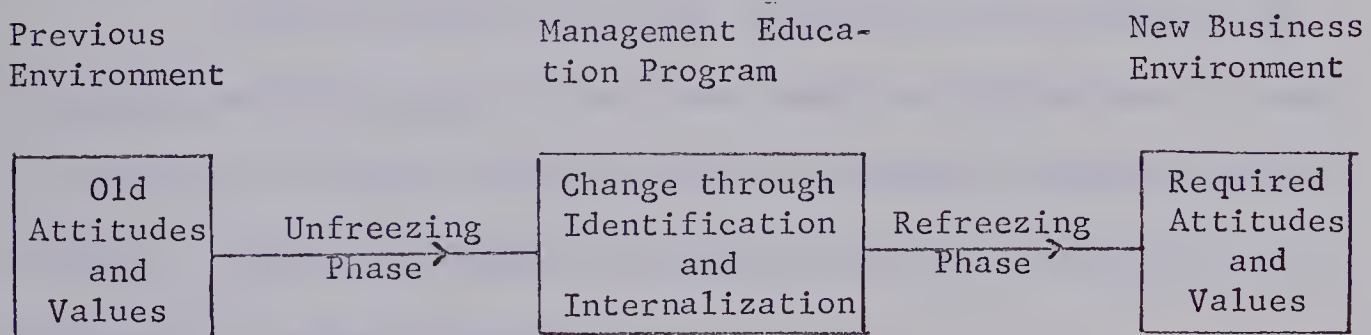
The other process of attitude change is internalisation. This is the process by which the individual works out for himself, the necessary values and attitudes to fit new situations and new roles. This type of process implies that the individual has a choice in deciding the appropriate behavior for a situation, and this

¹¹Edgar H. Schein, "Management Development as a Process of Influence", Industrial Management Review (May 1961), pp. 59-77.

internalisation will only occur in environments in which a number of different types of attitudes will be tolerated.

(3) Refreezing. Once the process of attitude change has occurred in the new environment, it is important that the individual retains these attitudes when he commences, or returns to, his professional role. If there is support in his professional environment for the attitudes he has adopted, he will be more likely to retain these attitudes than if his peers and superiors show little support for his attitudes and values. If, however, the attitudes have been internalised during the change period, the individual will not require support for his attitudes and will, therefore, be less inclined to discard them in different environments.

These processes may be represented diagrammatically as follows:



Schein suggests that all aspects of these processes should be present for successful change of attitudes. If the unfreezing phase does not occur, individuals will tend to view the new attitudes and values, they are being presented with, as alien, and will not adopt them as their own. Also, if the refreezing phase does not occur, attitude changes that are not internalised will tend to lack permanence, and old attitudes and values will be adopted again when

a new environment and reference set are encountered.

Measurement of Attitudes

Although considerable mention will be made in this study of attitude change, it is not the purpose of the study to delve too deeply into the nature of attitudes and the complex manner in which they change. However, it will be necessary to examine, the manner in which attitudes are measured, and the validity of the measures used, as these techniques form the basis for this work.

In examining attitudes, Thurstone & Chave¹² found it necessary to distinguish between 'attitude' and 'opinion'. They defined the concept of 'attitude' as "the sum total of a man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and convictions about any specific topic." 'Opinion' was defined as the verbal expression of attitude.

This distinction was made, because of the difficulty of measuring attitude per se. How a man feels and thinks about a certain topic, can only be measured from his outward expression of that feeling. Opinion represents the written and verbal responses of individuals to certain issues.

Murphy & Likert¹³ felt the distinction between 'attitude' and 'opinion' was difficult to make, and preferred to think of

¹²L. L. Thurstone and E. J. Chave, The Measurement of Attitude (Chicago: The University of Chicago Press, 1928), p. 7.

¹³Gardner Murphy and Rensis Likert, Public Opinion & the Individual (New York: Russell and Russell, 1938), p. 3.

measures of 'opinion' and 'attitude' as measures of the same attribute. They define an attitude as "a set or adjustment in preparation for a certain sort of overt behavior." However, they recognise the distinction between overt action, resulting from a certain attitude, and verbal behavior.

In measuring attitudes, we are dealing with verbal behavior, being the responses given to questions on certain issues, and not overt action. However, the overt action, which may be triggered by a certain attitude, can only be measured, before the action occurs, by the individual's verbal responses. Attitude measurement, therefore, resolves itself into a study of verbal responses, rather than direct observations of individual action, as it is seldom possible for the researcher to get "the opportunity to observe in detail the behavior of all of the individuals in whom he is interested."¹⁴

The most obvious method of obtaining verbal responses from a person is by direct questioning, in the form of interviews. A disadvantage of this method is that individuals are reluctant to reveal their true feelings on certain issues, particularly controversial ones, for fear of social disapproval.¹⁵

The most commonly used method of questioning individuals is through questionnaires, and is the method that is adopted by this study. The questions, in a questionnaire, attempt to develop a 'continuum' for attitude similar to those used for more readily

¹⁴Allen L. Edwards, Techniques of Attitude Scale Construction (New York: Appleton-Century-Crofts, Inc., 1957), p. 6.

¹⁵Ibid., p. 3.

measurable quantities, such as length, temperature and age. Just as these use inches, degrees and years as a continuum for measurement, attitude questionnaires attempt to range responses for statements along a continuum, from favourable to unfavourable, or from agreement to disagreement. The individual is asked, in a questionnaire, to place his attitude, towards a particular statement, or object, in the place he thinks it fits best along a given continuum. This has been accomplished in several ways.

Thurstone, in his study of attitudes towards the church,¹⁶ gave his subjects 130 statements on slips of paper and asked them to sort them into 11 piles ranging from 'highest appreciation of the church' to 'strongest depreciation of the church'. No other labels were given to the piles apart from the sixth pile which was for 'neutral expressions' so that the subject would construct his own continuum rather than being bound by labels given to the various categories by the investigator.

Miner,¹⁷ in his measurement of motivation to manage and aptitude for managerial roles, used a sentence completion technique, in which the individual was required to complete a sentence in the manner he felt most nearly reflected his attitude towards the object presented in the first part of the sentence. The responses were then graded as positive, neutral or negative based on lists of typical responses for each question prepared with the questionnaire. This

¹⁶L. L. Thurstone and E. J. Chave, op. cit., pp. 22-35.

¹⁷John B. Miner, Miner Sentence Completion Scale (New York: Springer Publishing Co., 1961), (d).

method has two disadvantages.

- (1) There are only three possible positions for a subject to be placed on a continuum. The subjects' attitude on a question must be positive, negative or neutral. There is no allowance made for intermediate attitudes.
- (2) The measurement of attitude on a particular issue involves two separate judgments -- by the subject as to his attitude towards the object and by the investigator as to the appropriate position of the response on the continuum.

Murphy & Likert, in addition to using statements for subjects to judge their attitude, tried varying the object presented to the subject for assessment. In place of questionnaire-type statements they presented him with films, photographs and newspaper clippings and asked him to assess his attitude towards these by choosing between statements about the objects.¹⁸

There are many variations of these methods used to attempt attitude measure. The aim is basically the same in all the methods, which is to measure the subjects' true attitude towards an issue, from the verbal response given on that issue, as accurately as possible. The present study uses a questionnaire involving statements for which the responses are ranged on a four-point continuum:

- (i) strong agreement
- (ii) mild agreement
- (iii) mild disagreement
- (iv) strong disagreement

¹⁸Gardner Murphy and Rensis Likert, op. cit., pp. 112-185.

The actual questionnaire and the responses given will be discussed more fully in the next chapter.

Need for Attitude Measurement in Business Education

As stated previously, an integral part of a management education program is the acquisition of appropriate attitudes by the students that will help them in their future professional roles. The desired attitudes are the ones that will:

- (1) enhance the individual's chances of obtaining a professional role initially
- (2) enhance his chances of being promoted within his profession.

It is therefore necessary that any technique of measurement of attitude or attitude change during a management education program must be able to measure the degree to which the desired attitudes have been adopted by the students. The question then arises as to what are the important attitudes that should be held by management. These have not been determined empirically, but Schein¹⁹ postulates that

to become a manager one must probably value the announced goals of the organisation, have a sense of responsibility to subordinates, customers and stock holders, and trust people enough to delegate responsibilities and duties to them. To rise from middle to top management, one probably must be able to give up loyalties to a particular function in the organisation and develop a perspective toward the community in which the organisation functions and value the profit and the survival of the organisation.²⁰

¹⁹Edgar H. Schein, "Attitude Change During Management Education", op. cit.

²⁰A more complete discussion of the desirable attitudes for the managerial profession is given in: Edgar H. Schein, "The Problem of Moral Education for the Business Manager", in Approaches to Education for Character, Clarence H. Faust and Jessica Feingold (eds.) (New York: Columbia University Press, 1969), pp. 173-192.

Since the concept of a professional school implies that the correct professional attitudes be taught, it is important to know the extent to which students have learned these attitudes during their education.

It is also important to examine the manner in which an individual acquires the appropriate attitudes. Merton²¹ sees this process occurring partly through the formal processes of teaching of one kind or another, and partly through "indirect learning in which attitudes, values and behavior patterns are acquired as by-products of contact with instructors and peers." Brim²² identifies individuals as belonging in formal and informal organisations, and having specified and unspecified roles. The university is a formal organisation in which the role of the student is specified as the 'learner', and "while training may be acquired in a well-defined role, a great deal of indirect unplanned training takes place through informal discussion and perhaps unconscious identification with role models."

It is, therefore, important to examine the extent to which the faculty contribute towards attitude change in the students as the concept of the professional school implies that the necessary professional attitudes be taught through the specified roles of the school. Schein extends this further and states that the faculty may not be influencing attitudes in the direction that is prevalent in

²¹Robert K. Merton, George G. Reader, and Patricia L. Kendall (eds.), The Student Physician (Harvard University Press, 1957), p. 41.

²²Orville G. Brim and Staton Wheeler, op. cit., p. 35.

industry.²³ Attitudes that are considered desirable by faculty may be different from those considered desirable by the profession. In fact it may be the aim of the faculty to introduce students into the business setting who may be in a position sometime in the future to redefine the desirable kinds of attitudes in industry.

Where the faculty has different attitudes from the profession and has been successful in changing the students' attitudes towards their own, the refreezing process, mentioned earlier, may not take place. The students will be placed in a business environment where these attitudes are not generally held as desirable. However, the attitudes may still remain latent in the individual and sometime in the future when more people enter the profession from the business school there may be a change in industry towards acceptance of these attitudes. It is in this way that the professional school contributes towards the growth and development of the profession itself.²⁴

It is important, therefore, that in studying attitude change during management education, we concentrate, not only on change in the students' attitudes but also on the attitudes held by the business school faculty and by the profession. The problem then becomes three-fold. It is necessary to determine:

- (1) On which issues the faculty is changing the students' attitudes towards their own.
- (2) On which of these issues the faculty and the profession differ.

²³Edgar H. Schein, "Attitude Change During Management Education", op. cit.

²⁴Loc. cit.

- (3) On which issues the students' attitudes are unchanged or are changed by other factors in the business school environment -- it may be possible that some of the existing attitudes held by the profession have been passed on to the student through the various contacts the student makes with the profession during the program: e.g. campus interviews, luncheon meetings and field projects conducted as part of the program. Students when they change their attitudes may actually be moving in a "professional" direction as this is exemplified by practitioners rather than teachers.²⁵

Previous Studies on Socialisation into Professional Roles

Several studies have been done previously in the fields of law, dentistry, medicine, engineering and management education. A few of these studies and their findings will be reviewed.

Dental School. Quarantelli, et al.²⁶ conducted a study at a dental school to test changes in students in their values, belief and self-image between their first year and second year of study. They hypothesized that:

- (1) There would be a difference in the way in which students viewed themselves in their first year from the way in which the faculty viewed them.
- (2) There would be a difference in the non-technical values and beliefs held by first-year students and faculty.

²⁵E. Quarantelli, Margaret Helfrich, and D. Lutsky, "Faculty and Student Perception in a Professional School", Sociology and Social Research, 49, (1964).

²⁶Loc. cit.

- (3) There would be a movement towards the faculty by second-year students in their perception of themselves.
- (4) The values and beliefs held by the students would change, in the second year, towards those held by the faculty.

The students and faculty were given 78-item questionnaires with 6 different content areas and required to answer each item on a 4-point agree/disagree continuum. These were administered at the start of the students' first year and again, to the students only, at the start of their second year.

The results of this study rejected all four hypotheses. Students were found to view themselves in much the same way on entering dental school as the faculty viewed them. They were also found to hold the appropriate set of values and beliefs. Little change was observed in the second year on self-image or values and beliefs.

Quarantelli, et al., therefore, could not find support for what they considered were commonly held views of professional schools, i.e.:

- (1) Recruits do not visualize themselves in the same way as the persons training them.
- (2) Recruits do not hold the appropriate professional set of attitudes and values.
- (3) Faculty of professional schools are directly influential in changing the perception of recruits in these matters.

They also report that similar lack of support for these views had been found in the studies of Caplovitz at a Medical School,

Schwartz at an Engineering School and Lortie at a Law School.²⁷

Law Schools. A study was done at a Law School by Thielens²⁸ to determine the extent to which professional ethics were taught at the school and also to the extent to which these ethics were already held by the students upon entry to the school.

Five situations were presented to practicing lawyers, and to students at four different schools on their entry to the school and again at the time of their graduation three years later. These situations required the subjects to choose between a number of different courses of action, the one they would choose, if confronted with the situation.

As was reported at the Dental School no evidence was found to support the view that students do not hold the appropriate set of values upon entry to professional schools. On the contrary, Thielens reports that the responses given by the entering students were considerably more ethical than the responses given by the members of the profession themselves in three of the situations. The students gave less ethical responses on the other two situations but overall gave more ethical responses than the practicing lawyers.

In all five of the situations, however, the graduating classes exhibited a higher percentage of ethical responses than they

²⁷David Caplovitz, "Relations in Medical School: A Study in Professional Socialization", (unpublished Ph.D. dissertation, Columbia University, 1960); Albert Schwartz, "The Engineering Student: Interaction Patterns and Orientation to Professional Values", (unpublished M.A. thesis, Ohio State University, 1962); and Dan C. Lortie, "Laymen to Lawmen: Law Schools, Careers, and Professional Socialization", Harvard Educational Review, 29, (Fall 1959), pp. 352-369.

²⁸Wagner P. Thielens, "The Influence of the Law School Experience on the Professional Ethics of Law Students", in Approaches to Education for Character, Clarence H. Faust and Jessica Feingold (eds.) (New York: Columbia University Press, 1969), pp. 153-171.

gave at entrance to law school. This indicated that the schools had been successful to some extent in teaching their students the appropriate set of values for their profession.

Medical School. Merton, et al.,²⁹ edited some studies done at four medical schools to determine

- (a) The advance expectations of entering medical school students.
- (b) The attitudes of the students towards their school and the kind of training that ought to be given
- (c) The attitudes of the students towards their profession and their own career
- (d) The student's view of himself in relation to his peers and to existing members of the profession.

In particular, one study on the development of a professional self-image in a student was examined.³⁰ Students were questioned at the end of each of their four years at medical school as to their self-image in dealing with patients. At the end of the first year 30% viewed themselves as doctors. Little change occurred during the second year, but a steady increase was observed over the next two years until at the end of the fourth year, over 80% thought of themselves as doctors.

²⁹Robert K. Merton, George G. Reader, and Patricia L. Kendall, op. cit.

³⁰Mary Jean Huntington, "The Development of a Professional Self-Image", in The Student Physician, Robert K. Merton, George G. Reader, and Patricia L. Kendall (eds.), (Harvard University Press, 1957), pp. 179-187.

Business School. Miner³¹ used his sentence completion scale, mentioned previously, to examine the effects of a particular course on business administration students and their motivation to manage and to exercise power over others. Students were examined before and after the course on each of the four occasions when the course was offered. As a control two other groups of students doing different courses, not designed to change an individual's motivation to manage, were examined before and after their courses.

The results showed that those doing the selected course increased considerably in their motivation to manage on all four occasions when the course was offered. The control groups, however, showed no increase (a slight decrease was reported). Thus it would appear that the selected course was successful in increasing an individual's suitability for managerial roles.

Miner also conducted a study to determine if these increases in motivation were temporary or permanent. After a period of at least six months the students were given the test once again. Although some significant decrease in motivation was reported there was still a considerable difference between the levels reported before the course and the follow-up study indicating that much of the change that occurred in the students was retained over time.

³¹John B. Miner, Studies in Management Education (New York: Springer Publishing Co., 1965), pp. 112-133.

Schein's Study of Students at the Sloan School of Management, M.I.T.

The study, conducted by Schein³² at the Sloan School of Management is being replicated in this study. Schein's study compared attitudes held by students prior to entry to the school with those held at graduation and related the attitude change in the students to the attitudes held by a group of managers and the faculty of the school. His study will be examined in some detail as the present study uses similar methods to those adopted by Schein and examines a similar process of attitude change during management education.

Schein conducted his study with two different student groups. Attitude questionnaires were given to incoming members of:

- (1) Graduate students enrolled in the two-year program leading to a Sloan Management degree. Two successive years were examined and data was obtained from 72 and 62 students respectively.
- (2) Sloan fellows who were middle-level managers about 30-40 years old who were sent back to school by their companies to obtain the Sloan Management degree in a one-year program. Three successive years were examined and data was obtained from 41, 44 and 46 students, respectively.

The questionnaires were distributed again just before graduation and returns were:

Graduates -- 39 and 34 students, respectively, being only a 55 percent return from each class.

³²Edgar H. Schein, op. cit.

Sloan Fellows -- 40, 41 and 40 men respectively.

As a measure of executive attitude questionnaires were given to 42 men who were engaged in a ten-week executive development course. Also the 54 members of the faculty of the school were examined and identified on the questionnaire by area of specialisation within the school.

The questionnaire used consisted of 100 statements requiring respondents to place the attitudes to the statements along the four point continuum

- (i) Strongly agree
- (ii) Mildly agree
- (iii) Mildly disagree
- (iv) Strongly disagree

From these 100 items Schein identified 19 different content areas and these content areas were grouped together to form six clusters. These were:

I. Business in Society

- (a) Management-Labour Relations
- (b) Business-Government Relations
- (c) Corporate Responsibility
- (d) Relations to Society

II. General Cynicism

- (a) General Cynicism
- (b) Amoralism of Managerial Role

III. Management Theory and Attitudes

- (a) Classical Management Theory
- (b) General Conservatism
- (c) Change and Cosmopolitanism

IV. Attitudes toward People and Groups

- (a) Faith in Workers
- (b) Individual vs Group Incentives
- (c) Individual vs Group Decision-Making
- (d) Interpersonal Orientation

V. Individual-Organizational Relations

- (a) Right to Privacy
- (b) Cynicism about how to get Ahead
- (c) Cynicism about Conformity Pressure

VI. Miscellaneous

- (a) Specialisation vs General Skills
- (b) Management Truisms
- (c) Corporation Size

From the responses received the following trends were observed:

1. Executives and faculty tended to differ on over half the scales. Executives tended to be opposed to labour and government intervention in industry, more in favour of a concept of broad corporate responsibility, less cynical about industry and management, more conservative, more in favour of traditional management theory and more in favour of using personal information about employees.
2. Faculty attitudes tended to differ with their area of specialisation. Those who specialised in policy, marketing and production tended to resemble the executives while those who specialised in organisation, labour-relations, finance and quantitative methods tended to differ from the executives.

- 3 The initial attitudes of the graduate students tended to be intermediate between those of the faculty and those of executives. The Sloan fellows tended to resemble the executives initially which is understandable as they have been questioned immediately after having occupied positions of middle management.
4. In both student groups there was a clear trend towards the adoption of faculty attitudes.

The findings of Schein's study will be examined in more depth in the succeeding chapters, as the present study replicates the Schein study, to ascertain the extent to which the processes of attitude change, observed by Schein, occur in the management education programs at the University of Alberta.

CHAPTER II

METHODOLOGY

Introduction

This chapter will present the methods used in replicating the study done at M.I.T. by Schein.¹ The first section will examine the nature of replication, and the reasons for duplicating Schein's study. This will be followed by a description of the data collection procedures, and a discussion of the data that was obtained. The final section will cover the methods used in data analysis, in replicating Schein's study, and in examining other issues not covered by his study.

The Replication Study

The purpose of this replication study is to test the generalisability of the findings presented by Schein, as outlined in the first chapter of this study. Galtung² has outlined four possibilities for replication studies (see Table 2.1).

Case (1): One would argue for generalisability.

Case (2): One would argue against generalisability.

Case (3): One would blame the data-collection procedures.

¹Edgar H. Schein, "Attitude Change During Management Education", Administrative Science Quarterly, Volume II, Number 4 (March 1967), pp. 601-628.

²Johan Galtung, Theory and Methods of Social Research (Denmark: P. J. Schmidts Bogtrykkeri, Vojens, 1967), p. 66.

TABLE 2.1
OUTCOMES OF REPLICATIONS

	Little or No Variation In the Findings	Variation in the Findings
No known source of variation	(1)	(2)
Known source of variation	(3)	(4)

Case (4): (a) One would argue for generalisability, if the known source of variation accounts adequately for the variation found.

(b) One would argue against generalisability, if the known source of variation accounts, in part, or not at all, for the variation found.

The question that immediately arises for the present study, from this model, is the extent to which there exists known sources of variation, between this study and that conducted by Schein at M.I.T. These sources of variation can be broken down into two parts:

- (1) Those arising out of differences between faculty, types of students, and the programs offered, at M.I.T. and the University of Alberta.
- (2) Those arising out of the different cultural settings of the two schools.

The first of these sources of variations will be examined later in this chapter. However, it will not be the purpose of this study to examine, in any depth, the differences in social, political,

and economic conditions existing between the environments of the two schools, although some of the variations in findings may be able to be explained by these differences.

The present study will argue mainly for Case (1) -- the generalisability of Schein's findings, and to a certain extent for Case (4) -- again for generalisability, where known sources of variation account for the variations found.

Fletcher³ states that "a knowledge of reliability is gained by replication. A study is repeated under the same conditions to establish the strength of its original prediction". Original studies generally hypothesize that the results they have obtained will apply with other samples examined under similar conditions. Replication studies are important for confirming or casting doubt on the results obtained from the parent study.

Fletcher further breaks down the replication study into two main components:

(1) Replicability Quotient. This examines the quality of the original study. It represents the extent to which the methods adopted by the original study are valid, and the extent to which they will have to be modified in the replication study. Two tests of replicability are given:

- (a) The degree to which the items used in the study will be applicable in different locations and at different times.

³Colin Fletcher, "On Replication: Notes on the Notions of a Replicability Quotient and a Generalisability Quotient", Sociology, Vol. 4, No. 1, (January 1970), pp. 52-69.

- (b) If scales have been used in the study, it is necessary to determine the validity of summing item scores to get a single measure, and using this as an attribute of the respondent. This is done by tests of scalability.⁴ If the items do not scale on replicability, doubts are raised as to the usability of the scale measure.

(2) Generalisability Quotient. This examines the conditions of the replication. Differences in time and place of the study affect "the degree to which the researcher strains the applicability and generalisability of the original thesis". The quotient is a measure of 'goodness of fit' between the conditions of the original and replication studies and increases when:

- (a) there are the same observers
- (b) researching at the same place
- (c) at the same time.

Obviously it is not practical to obtain these three conditions. The spirit of replication is to repeat the original study in a similar place, at a similar time, and to minimize the difference between observers.

For the purposes of this study the replicability quotient will not be examined. The same items will be used as those used in the Schein study, and the 19 scales, and 6 'clusters' of the scales,

⁴Factor Analysis is one of the main tests of scalability and a discussion of its use is given in Philip Levy and Derek Pugh, Working paper on "Scaling and Multivariate Analyses in the Study of Organisation Variables", pp. 10-13.

that were developed in the study, will be accepted without examination.⁵ It will be assumed that these items, which were valid at M.I.T., are independent of the time and place of their use, and can be legitimately grouped to form the scales, identified by Schein, and used at the University of Alberta.

The similarity conditions of time and place, required by the generalisability quotient, will be adhered to as closely as possible, and variations in these conditions will, to some extent account, for the variations in the findings.

In conclusion, therefore, the reason for replicating the study done by Schein is to establish the generalisability of his findings, when the study is performed under similar conditions but in a different environment. For generalisability, the findings must be able to stand the test of repeating the observations under similar conditions to the original study.

Data Collection

In this section a systematic examination will be made of the questionnaire used, and the methods adopted, to obtain the data from the respondents with the questionnaire. Particular attention will be given to those areas where the data collection differs from the Schein study.

This study was conducted using two different groups; those students enrolled in the Master of Business Administration program

⁵Minor differences in the items used and their effect on Schein's scales will be presented later in the chapter.

(M.B.A.'s) in the Faculty of Business Administration and Commerce; and those enrolled in a Management Development program in the Department of Extension; both at the University of Alberta.

M.B.A. Students. This group was enrolled in a two-year program at the University of Alberta, leading to a M.B.A. degree. Attitude questionnaires were given out in the fall, one week after the commencement of classes, to all members of both the first and second year classes. These were given out in the classroom, and the students were given time, during the actual class, to fill out the questionnaires. This was done in an effort to get the students' undivided attention to the questionnaire, and also to maximize the return of the questionnaires. Of the 74 students enrolled in the program, 63 filled out and returned the questionnaires. Of these students, 33 were in the first year of the program, and 30 were due to complete their course work for their degree during the year.

The same questionnaires were distributed to the students again in the spring. The first year students received their questionnaires during the last two weeks of class, while the second year students received theirs after completion of their course work and examinations, and prior to completing their thesis requirements. The returns obtained in the spring were, 33 from the first year students, and 29 from the second year students, constituting almost 100 percent return. Due to the confidential nature of the questionnaires however, it was not certain if the questionnaires returned at the end of the year were from the same students that filled them out at the beginning of the year. However, since only 11 students out of 74 in the fall, and 12 students out of 74 in the spring, failed to return

questionnaires, it will be assumed that any difference here will not noticeably affect the results.

This study has an advantage over Schein's study in that almost complete return was obtained from the students. Schein managed only just over 50 percent return from the students at M.I.T., and, as he noted, "we cannot rule out the possibility of an interaction between attitude change and completion of the study".⁶

One distinct difference of this study, from Schein's study, is that two groups, at the University of Alberta, were examined over a period involving only half their training. Schein examined two groups of students over their complete programs, leaving a two-year time lapse between initial and final data collection for each class. However, to some extent, this was impractical at the University of Alberta as:

- (1) there is a high attrition rate between students starting the first year and completing the second year of the program.
- (2) a number of students have entered the program directly into second year from commerce backgrounds.

The Department of Extension. The Management Development Program, at the University of Alberta Department of Extension, offers night-time courses for men and women who have assumed, or are about to assume, positions of higher responsibility in management. The program is designed to develop skills and understanding, which will contribute

⁶Edgar H. Schein, op. cit.

toward the professional development of a manager or executive. Eleven subjects are offered, and 366 companies have personnel registered in the program. Students are required to have a high school diploma, or suitable experience in management, and can complete the program, leading to a University Certificate of Management, in a minimum of three years.

The students examined, in this study, were those enrolled in the Business Organisation and Administration course, having one two-hour lecture a week for twenty-five weeks. Attitude questionnaires were completed, by the students, at the commencement of the course. Of the 111 students enrolled in the course, 59 completed and returned questionnaires, representing a 53 percent return. The relatively low return rate here may be attributable to two causes:

- (1) Students were absent from the classes in which the questionnaires were distributed.
- (2) Students were not required to fill out the questionnaires during class, and no particular pressure was exerted to encourage the return of completed questionnaires.

The questionnaires were distributed again at the end of the course. Of the 82 students who completed the course and wrote final examinations, 60 returned the questionnaires, representing a 73 percent return. This increase in return rate may be attributable to the fact that there is less likelihood of absence from the final classes, by those who intended to complete the course. The absolute number of returns is almost the same as at the commencement of the course. Once again, however, there was no certainty that those who completed questionnaires, at the commencement of the program, were

the same people as those who completed questionnaires at the end of the program.

Another factor that may affect the results obtained is that the students examined were at different stages in the management development program. Although this course is complete in itself, the students may already have completed anywhere from none to five previous courses in the program.

This group is not really comparable with any of the groups examined by Schein. The group of Sloan fellows were all college graduates in middle management positions, who were sent back to school by their companies to do an intensive twelve-month degree program. They were selected for the program on academic capabilities and managerial orientation. The other group examined by Schein were a group of top management, who were enrolled in a ten-week executive development course at the Sloan School of Management.

The students at the Extension Department do not compare with these groups. However, they represent people in lower or middle-level management from a wide diversity of different companies. For this reason the attitudes held by these students, on the various issues in the questionnaire, will be taken as representative of the prevailing attitudes in industry. Therefore, for this study, and for comparison purposes with Schein's study, the initial attitudes of the students in the Department of Extension course of Business Organisation and Administration will be taken to be a measure of executive attitude.

These two groups of students represent those that were examined using the panel technique of examination,⁷ which involves obtaining information from the same people, in the same way, but at a different time. This was the technique adopted by all the studies cited in Chapter I, which studied the change in professional attitude during the education program. One of the important considerations of these types of studies is the lapse in time between the initial and final distribution of questionnaires. In the Schein study there was a two-year lapse between initial and final questioning of graduate students, and a one-year lapse for the Sloan fellows. In this study there was only a seven-month time lapse between questionings for both student groups. For this short period, there may be a certain amount of recollection of the questions, on part of the students, which may influence the manner in which they answer, and have an affect on their motivation to answer the questions adequately.

Murphy and Likert⁸ performed a study, involving a 30 day retest procedure, and were concerned about retention of answers over this short period. They conducted tests requiring students to remember their previous answers to a test, and reported that the students invariably failed to recall their specific answers after 30 days. Therefore, for the purpose of this study, it will be considered

⁷A discussion of this method of repeated observations is given in Johan Galtung, op. cit., pp. 84-89.

⁸Gardner Murphy and Rensis Likert, Public Opinion and the Individual (New York: Russell and Russell, 1967), p. 50.

unlikely that the students could recall their answers to specific items, or their attitudes on certain issues, after a seven-month interval.

In addition to these two groups of students, members of the faculty of the Department of Business Administration and Commerce were given the questionnaires, as it is hypothesised that they are responsible, to some degree, for any attitude changes that occur during the program. Of the 44 members of the faculty, 32 returned completed questionnaires. The reasons for only 73 percent return were:

- (1) Some faculty members left the University before the end of the year, and before filling out the questionnaires.
- (2) Some returned incomplete questionnaires.

In addition to filling out the questionnaires, the faculty were requested to identify themselves, by their area of specialisation, within the department.

In the Schein study this information was used for illustrative purposes, to show the relationship between teaching area and the attitudes held by faculty members. His breakdown of faculty into area of specialisation was as given in Table 2.2.

As can be seen from these figures, the sizes of some of the groups are very small, and consequently the generalisability of the results obtained from these groups, as individual units, must be doubtful.

TABLE 2.2
AREAS OF SPECIALISATION OF FACULTY MEMBERS
AT M.I.T. (N = 54)

Area of Specialisation	Number in the Area
Organisation	13
Economics, Finance and Accounting	10
Quantitative Methods, Statistics and Industrial Dynamics	8
Operations Management and Production	5
Marketing	5
Labour Relations	5
Administrative Policy	4
Law	< 4
Economic History	< 4

The present study gathered information from only 32 faculty members, at the University of Alberta, whose areas of specialisation were as given in Table 2.3.

The numbers falling into each group was even smaller than Schein obtained, and therefore a replication of this part of the study would not give very meaningful results. Moreover, a comparison with the results obtained by Schein, would probably be meaningless, as his sample sizes, for the breakdown of the faculty into areas of specialisation, were, for the most part, too small to permit generalisation. However, in his analysis, Schein tended to group the areas of specialisation into two major areas:

- (1) policy, marketing, and production -- whose attitude tended to resemble the executives,
- (2) organisation, labour relations, finance and quantitative -- whose attitude tended to differ from the executives.

TABLE 2.3

AREAS OF SPECIALISATION OF FACULTY MEMBERS
AT THE UNIVERSITY OF ALBERTA (N = 32)

Area of Specialisation	Number in the Area
Accounting	4
Economics	6
Finance	2
Marketing	4
Operations Research	2
Industrial Relations	2
Business Policy	1
Organisational Behaviour	10
Other (unspecified)	1

It was therefore decided to report the results for the faculty, at the University of Alberta, in terms of their area of specialisation, in two groups:

- (1) The first group consisted of accounting, economics, finance, marketing, operations research.
- (2) The second group consisted of industrial relations, business policy, organisational behaviour.

The sample sizes for these groups was 18 and 14 respectively. The first group represents those members of faculty in the more "quantitative" areas of specialisation, while the second group represented those involved in the "humanities". Therefore this study will present results, illustrating the differences in attitudes existing in the faculty, using this dichotomy.

The Attitude Questionnaire

The attitude questionnaire used for this study was the same as that developed by Schein in his study. It consisted of 94 belief or value statements, and the respondents were required to indicate their degree of agreement, or disagreement, with the particular statements on a 4-point continuum:

- (1) strong agreement
- (2) mild agreement
- (3) mild disagreement
- (4) strong disagreement

by writing the numbers 1, 2, 3, 4 as indicated.

Respondents were asked to be as frank as possible and to encourage this frankness it was made clear that the responses given would be completely confidential. It was also pointed out on the questionnaires that the statements did not have right or wrong answers and that the required response was the individual's feelings about the issues involved in the statements. In addition, a directive was given to leave an item blank if it made no sense at all or if the respondent found that he genuinely had no opinion about the issue involved. However, respondents were requested to answer as many items as possible.

This directive resulted in 1.4 percent of all answers from all respondents being left blank. This broke down into the following percentages for each of the groups examined:

Faculty	3.7
Students (Initial)	1.9
Students (Final)	0.8
Extension Department (Initial)	1.2
Extension Department (Final)	0.4

Certain items gave respondents difficulty and were more often left unanswered than other statements. This occurred mainly for two reasons:

- (1) The respondents did not understand the issue involved; e.g.
 - (a) Item 34, "The human relations group dynamics approach in industry tends to stifle the individuality of employees." Ten percent of the respondents left this item unanswered.
 - (b) Item 86: "Present tax laws tend to stifle capital expansion by business more than they encourage it." Six percent left this item unanswered. The item presented difficulty to entering M.B.A.'s who were unfamiliar with the issue involved.
- (2) The questions were provocative or generalised the issue to a degree where it became difficult for the respondent to give an opinion; e.g. Item 6: "Most managers are delightful people to know socially." Six percent left this item unanswered.

The attitude questionnaire used, was not exactly the same as the one used by Schein in his study. Schein used one questionnaire

with 190 items reflecting ten content areas for his pilot study. From this he developed Public Opinion Questionnaire II (POQ II) consisting of 100 items reflecting 19 content areas which he used for his main study, which is to be replicated in this study. From this questionnaire he developed a third Public Opinion Questionnaire (POQ III) which was a slightly improved version of POQ II. This questionnaire was furnished upon request by the author and was used in this study.

The items in POQ III were similar to those in POQ II although some of them were renumbered. This presented very little problem to the study. However 13 items were deleted from POQ II and 7 new items added in POQ III. Fortunately 10 of the deleted items were independent items and did not belong to any of the 19 scales. The other 3 items represented changes to 2 of the scales -- two items being deleted from each of these scales. A problem arose in allocating the 7 additional items in POQ III to the existing 19 scales. Since this information was not provided with the questionnaire (POQ III), it was decided to treat these 7 items as independent items to preserve the scales as much as possible as they were developed by Schein. This meant that, with the exception of 2 scales exactly the same measurements were used for the replication as those used in Schein's study. The complete version of POQ III used for this study is included in Appendix A. The scales used in this study were the same as those listed in Chapter I and were:

I Business in Society (24)

Scale 1 Management-Labour Relations (5)

Scale 2 Business-Government Relations (10)

Scale 3 Corporate Responsibility (5)

Scale 4 Relations to Society (4)

II General Cynicism (15)

Scale 5 General Cynicism (10)

Scale 6 Amoralism of Managerial Role (5)

III Management Theory and Attitudes (18)

Scale 7 Classical Management Theory (5)

Scale 8 General Conservatism (5)

Scale 9 Change and Cosmopolitanism (8)

IV Attitude Toward People and Groups (15)

Scale 10 Faith in Workers (4)

Scale 11 Individual vs Group Incentives (3)

Scale 12 Individual vs Group Decision-Making (5)

Scale 13 Interpersonal Orientation (3)

V Individual-Organization Relation (11)

Scale 14 Right to Privacy (5)

Scale 15 Cynicism about how to get Ahead (3)

Scale 16 Cynicism about Conformity Pressure (3)

VI Miscellaneous Scales (13)

Scale 17 Specialisation vs General Skills (3)

Scale 18 Management Truisms (8)

Scale 19 Corporation Size (2)

The figures in parentheses represent the numbers of items comprising each scale or group of scales. The two scales affected by using POQ III instead of POQ II were scales 9 and 18. The items deleted from these were:

(1) Scale 9 -- Change and Cosmopolitanism.

(a) Item 25 -- The most important skill for the manager of the future will be skill in planning and controlling change.

(b) Item 67 -- Industry would be better off if it consolidated some of its practices instead of constantly planning for change.

(2) Scale 18 -- Management Truisms.

(a) Item 23 -- The man who gets ahead in industry is the man who is willing to work hard.

(b) Item 67 -- As above.

A complete listing of the 19 scales and the independent items, not belonging to any of the scales is given in Appendix B.

Scaling Methods and the Use of Scales

Considerable use is made in this study of scales as they are used to measure the attitudes of the group surveyed. Various methods of developing and using scale measurements are outlined by Edwards⁹ but will not be discussed here. Attitude scales have arisen out of a desire for a quick and convenient measure of attitudes that could be used with large groups.¹⁰ The scales used in this study are obtained by grouping together certain items. The scores for these items, ranging from 1 to 4, are summated to give a 'scale' score for that particular issue for the individual concerned. This scale score represents a measurement of the individual's attitude towards the issue. This method of combining item scores to give scale scores will only be valid under two conditions:

⁹Allen L. Edwards, Techniques of Attitude Scale Construction (New York: Appleton-Century-Crofts Inc., 1957).

¹⁰Ibid., p. 9.

- (1) People with a favourable attitude towards one item in the scale will generally have favourable attitudes towards all the other items in the scale and similarly an unfavourable attitude on one item will be matched by unfavourable attitudes on the other items.
- (2) The respondents' scores on one scale will not closely match their scores on another scale as this would suggest that the two scales are not really separable and are basically measuring the same attitude.

The justification for the development and use of scales is that there are natural unitary structures in personality and that these structures will result in similar responses being given to certain items which may then be grouped to form scales.¹¹ The techniques of correlation and factor analysis facilitate the breaking down of large numbers of items into their components scales, and it is these techniques that have been adopted by Schein in his study to develop the scales listed previously.

The scale scores for the different groups that are reported in this study are obtained by summing the scores for the individual items in the scale. The mean of these scale scores is then found and the results divided by the number of items in each scale to give scores between 1 and 4 which are used as a measure of the attitudes of the group on the individual scales.

¹¹Raymond B. Cattell, The Scientific Analysis of Personality (Suffolk: Richard Clay (The Chaucer Press) Ltd., 1965), p. 55.

Other Areas of Investigation

In addition to the replication of Schein's study, data collected in this research enabled the scope of this study to be extended beyond the scope of Schein's original study. These further areas of investigation are outlined below.

Values and Beliefs of Faculty, Students, and Executives. The results from Schein's study showed clear differences between the values and beliefs of the faculty and the executives at M.I.T. In addition, the M.B.A. students' values tended to differ from the faculty and executives' values at M.I.T., although the students' values tended to be intermediate between those of the faculty and those of the executives. This study will also analyse the differences in values between the M.B.A. students, faculty, and executives, at the University of Alberta. But, with figures available from both the University of Alberta and M.I.T., it was now possible to compare the values of

1. M.B.A. students,
2. Faculty,
3. Executives,

at the two universities. A discussion of the results obtained is presented in the next chapter.

Status of Students in the M.B.A. Program. As mentioned previously, Schein's study took two entering classes of graduate students, measured their attitudes, and repeated the measurements immediately prior to their graduation. Ideally, to replicate Schein's study, it would be necessary to take an entering class at the University of Alberta and follow it through to the time of graduation, making attitude measurements in a similar manner to that used by Schein.

The attitudes and attitude changes reported in this study for the students represent a combination of the first and second year group.

The study was therefore extended to determine the amount of change that occurs in the individual years of the M.B.A. program. In addition to filling out the attitude questionnaire the students were asked to identify themselves by their year of study in the program. The aggregate attitudes obtained for the two groups of students was then related to the aggregate attitudes obtained for the executive group, which was approximated by the initial attitudes of the Department of Extension students, and the aggregate attitude obtained for the faculty group. A discussion of the results obtained is presented in the next chapter.

Personal Backgrounds of M.B.A. Students in Relation to Their Attitudes.

There are many factors in the backgrounds of students which play a part in the shaping of their attitudes.¹² There are many factors in the socialisation processes which will influence a person's values and opinions. Murphy and Likert break these processes down into three broad categories for students.¹³

- (1) Their home experiences.
- (2) Their school experiences.
- (3) Their college experiences.

The factors in these experiences that contribute to attitude formation are complex and generally do not lend themselves easily to measurement. However certain characteristics of an

¹²Gardner Murphy and Rensis Likert, op. cit., p. 68.

¹³Loc. cit.

individual's background are readily measurable. Galtung¹⁴ calls these public variables and defines them as "individual values which are known and known to be known by others. Examples are age, sex, race, creed, occupation, income, family, origin." The other more intangible characteristics he defines as private variables which include the more permanent type of personality traits and the often changing elements of attitudes and behaviour. It is the private variables that are examined in attitude studies. Often in the social sciences, however, attempts are made to relate an individual's public and private characteristics, to determine the extent of the influence of background factors on attitudes and behaviour.

In order to relate individual backgrounds to attitudes held, in this study students were asked to furnish information on their age, marital status, childhood environment, religion, church attendance, country of childhood, father's occupation, father's education, father's ethnic origin, political affiliation and under-graduate degree held. This information was requested from the students only at the beginning of the year. Therefore it was only possible to relate background characteristics to the initial attitudes held by the students and not to the amount of attitude change that occurred over the course of the year.

Of the background information collected the variables of marital status, childhood environment, religion, church attendance,

¹⁴Johan Galtung, op. cit., pp. 29-30.

country of childhood, political affiliation and under-graduate degree held were selected and related to the individual's scores on the 19 attitude scales. The results obtained are presented in Appendix C.

Method of Analysis

The data collected in this study was summarised and analysed using the Statistical Package for the Social Sciences (SPSS) with the 360/67 computer at the University of Alberta.¹⁵ The statistical significance tests outlined in the next chapter were performed on the Remote Job Entry terminals to the 360/67, using A.P.L.¹⁶

This chapter has outlined the data collection procedures. The next chapter will cover the presentation and analysis of the results obtained.

¹⁵Norman H. Nie, and Dale H. Bent, with C. Hadlai Hull, "Statistical Package for the Social Sciences", (Provisional Users Manual).

¹⁶A. D. Falkoff and K. E. Iverson, APL\360: Users Manual (International Business Machines Corporation, 1968).

CHAPTER III

ANALYSIS OF THE RESULTS

Introduction

This chapter will present the results of the study and an analysis of these results. The first section will focus on attitude change, within the M.B.A. student groups, at M.I.T. and at the University of Alberta. The second section will examine and compare the initial attitudes held by the faculty, M.B.A. students, and executives, at the two universities. The final section will present the results obtained from dichotomising the M.B.A. student group, at the University of Alberta, into first year and second year.

Tests for Significance of Differences in Attitude

The criteria used for attitude change within the M.B.A. student group by Schein was based on replication and statistical significance. The replication test required that the two groups of graduate students tested both changed in the same direction, and that the three groups of Sloan fellows all changed in the same direction. As only one group of each of the student bodies was tested in this study, it was not possible to use this criterion. Therefore, the single criterion adopted for this study, for attitude change, was a statistical significance test, similar to that adopted by Schein.¹

¹Edgar H. Schein, "Attitude Change During Management Education", Administrative Science Quarterly, Vol. II, Number 4, (March 1967), pp. 601-628.

On each scale the hypothesis was tested that there was no difference between the mean scores for the groups being examined. t-scores were developed for each of the scales, for the difference between the group means, using the formula:

$$t = \frac{(M_1 - M_2) - E(M_1 - M_2)}{\text{estimated } \sigma \text{ diff}}$$

where M_1 M_2 are the two group means, and $E(M_1 - M_2)$ is the estimated difference in means, which, by the hypothesis, is equal to zero. The estimated σ diff is the pooled estimate of the variance, and is given by the formula

$$\text{estimated } \sigma \text{ diff} = \sqrt{\frac{(N_1 S_1^2 + N_2 S_2^2) (N_1 + N_2)}{(N_1 + N_2 - 2) (N_1 N_2)}}$$

where N_1 N_2 are the number of persons in each group and S_1 S_2 are the standard deviations for each group.² For a significance level of 0.05 (two-tailed test), and group sizes of approximately 60, the critical value of t is 2.0. This means that, for t -values of greater than 2.0, there is a 95 percent probability that the hypothesis being tested is untrue. The implication in this case is, that there is a 95 percent probability, that attitude change has occurred.

Department of Extension

The results from the initial and final testing, of people attending the Department of Extension courses, was examined, before

²William L. Hays, Statistics for Psychologists (New York: Holt, Rinehart and Wilson, Inc., 1963), p. 320.

proceeding with the comparison studies, to determine the validity of using their attitudes as a measure of executive values. There was no significant change in the group means found on any of the 19 scales. In fact the only noticeable changes were on the scales dealing with people and groups. Here there was a trend towards higher faith in workers and towards greater group orientation. For all the other scales the t-values, for the difference in means, was less than 1.0.

This result was predicted to a certain extent in Chapter I. Schein's model for attitude change³ requires that, before any change can occur, the individual must go through a certain period of "un-freezing", whereby he is removed, as much as possible, from environments which will give support to his old attitudes. The Department of Extension students attend their courses only at night time, and consequently do not leave the environment supporting their old attitudes. New attitudes need a certain amount of reinforcement, and this reinforcement is probably not obtained in their day-to-day work.

Since little attitude change was observed for the people attending Department of Extension courses, their initial attitudes will be taken as a single measure of executive attitude for the remainder of the discussion.

The 19 scales are grouped in 6 clusters and the results are presented in terms of these clusters

³Edgar H. Schein, "Management Development as a Process of Influence", Industrial Management Review, (May 1961), pp. 59-77.

THE COMPARISON OF ATTITUDE CHANGE WITHIN THE
M.B.A. STUDENT GROUPS AT M.I.T. AND
THE UNIVERSITY OF ALBERTA

Analysis

The results in this section are presented in tabular form for each scale within the six clusters:

1. Business in Society
2. General Cynicism
3. Management Theory and Attitudes
4. Attitudes Towards People and Groups
5. Individual-Organisation Relations
6. Miscellaneous Scales.

The mean scale scores are given for the following groups, with the numbers in each group shown in parentheses, for the University of Alberta and M.I.T. respectively:

1. Executives	E	(59)	(42)
2. Faculty	F	(32)	(54)
3. Students			
Initial Testing	S ₁	(63)	(73) ⁴
Final Testing	S ₂	(62)	(73)

The results for the t-tests, for significance of attitude change, are also given, with an asterisk denoting significant change at the 0.05 level. The actual values of the t-scores, for the change

⁴The actual number of students questioned by Schein, at the commencement of the M.B.A. program, was 134. However, only the results for the 73 students, who completed the questionnaires again, at the end of the program, were used in his study.

in the M.I.T. students' attitudes, were not available, and consequently significance is only reported, where appropriate, with an asterisk, in accordance with the results presented by Schein in his study.⁵

This section deals with the degree of attitude change that occurred within the M.B.A. student groups at the University of Alberta and M.I.T., using the executive and faculty attitudes as guides for the direction of change only. A comparison of attitudes held by the various groups examined at the two universities will be given in the next section.

Cluster I Business in Society

The four scales, making up this cluster, deal with labour-management relations, business-government relations, attitudes towards breadth of corporate responsibility and degree of cynicism regarding business-consumer relationships. Comparative results for M.I.T. and the University of Alberta are given in Table 3.1.

Management-Labour Relations. The University of Alberta students moved away from the executive and faculty attitudes considerably on this scale (t-score = 1.8), towards favouring union intervention in business. No change was noted in the M.I.T. students.

Business-Government Relations. The change in the U. of A. students on this scale was significant (t-score - 2.1). The students moved away from the executives and towards the faculty, in the direction of increasing support for government intervention in business. No change was noted in the M.I.T. students.

⁵Edgar H. Schein, "Attitude Change During Management Education", op. cit.

TABLE 3.1
BUSINESS IN SOCIETY

<u>Scale</u>	<u>Univ.</u>	E	F	S ₁	S ₂	<u>t-test</u>
1. <u>Management-Labour Relations</u>	U. of A.	2.61	2.75	2.79	2.94	1.8
Low score means favouring freedom from labour intervention	M.I.T.	2.25	2.95	2.74	2.76	--
2. <u>Business-Government Relations</u>	U. of A.	2.65	2.84	2.64	2.79	2.1 (*)
Low score means favouring freedom from government intervention	M.I.T.	2.00	2.78	2.45	2.45	--
3. <u>Corporate Responsibility</u>	U. of A.	2.57	2.72	2.45	2.50	0.5
Low score means belief in broad corporate responsibility	M.I.T.	2.56	2.76	2.72	2.76	--
4. <u>Relations to Society</u>	U. of A.	2.78	2.48	2.68	2.77	1.1
Low score means low cynicism	M.I.T.	2.44	2.39	2.73	2.68	--

See Figure 3.1 for a graphical representation of these results

Corporate Responsibility. A small change in student attitude towards the faculty attitude was noted at both universities, in a direction of decreasing belief in broad responsibility.

Relations to Society. A moderate change was noted in the U. of A. students (t-score = 1.1), away from the faculty and towards the executives. A small change was noted, in the opposite direction, in the M.I.T. students, towards the faculty and the executives. The U. of A. students became increasingly cynical, while the M.I.T. students became less cynical, over the period of the study.

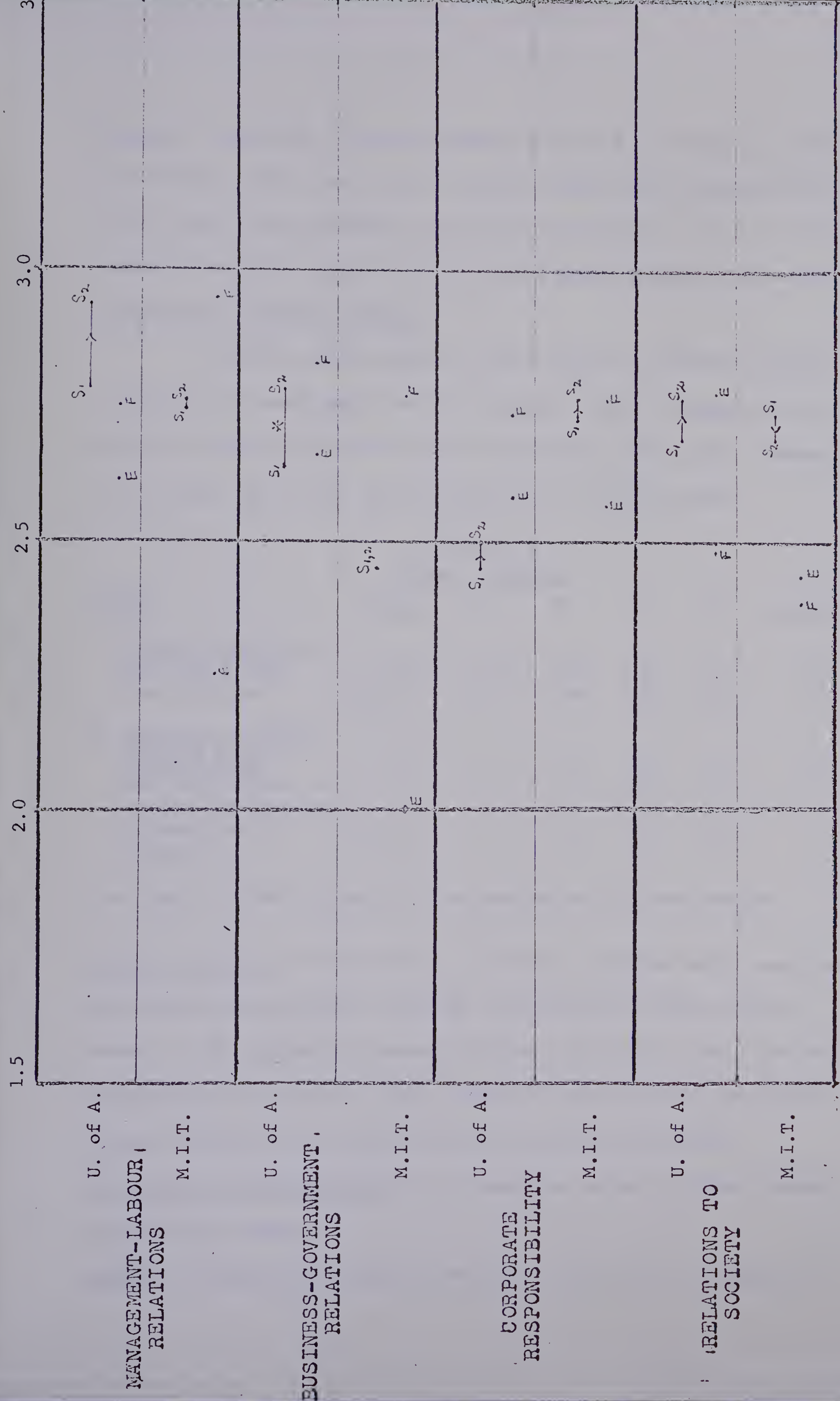


FIGURE 3.1

Summary. Negligible change was noted in the M.I.T. students on these four scales, while the U. of A. students became more sympathetic towards labour and government intervention in business, and to a lesser extent became more cynical about business relationships with society.

Cluster II General Cynicism

The two scales, making up this cluster, deal with general cynicism about management, and the degree to which a manager compromises his morals and ethics in the fulfillment of his role. Comparative results for M.I.T. and the University of Alberta were:

TABLE 3.2

<u>Scale</u>	GENERAL CYNICISM					
	<u>Univ.</u>	E	F	S ₁	S ₂	<u>t-test</u>
1. <u>General Cynicism</u>						
Low score means	U. of A.	2.28	2.39	2.44	2.57	1.8
low cynicism	M.I.T.	2.27	2.56	2.48	2.52	--
2. <u>Amorality of Managerial Role</u>						
Low score means	U. of A.	2.23	2.09	2.22	2.20	0.2
belief that one can						
be moral as a	M.I.T.	1.65	1.93	2.10	2.10	--
manager						

See Figure 3.2 for a graphical representation of these results

General Cynicism. The University of Alberta students moved away from the executive and faculty attitudes considerably on this scale (t-score = 1.8), towards increased cynicism. At M.I.T. a small increase in cynicism was observed in the students, and the direction of this change was toward the faculty and away from the executives.

Amorality of Managerial Role. No change was noted in either student group on this scale.

Summary. Negligible change was observed in the M.I.T. students on

GENERAL CYNISM

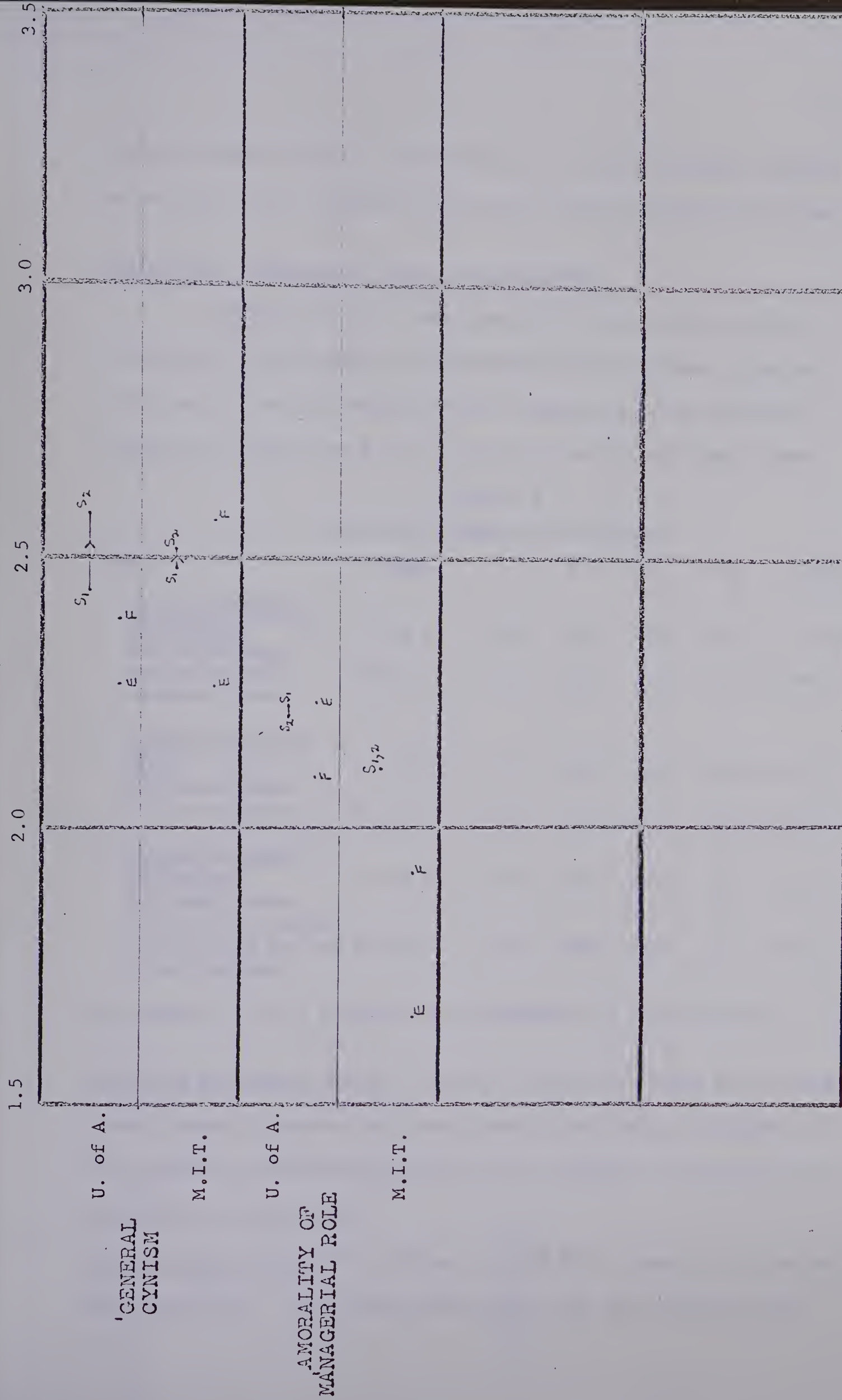


FIGURE 3.2

either of these scales. The University of Alberta students changed on one scale, that of general cynicism, towards increased cynicism.

Cluster III Management Theory and Attitudes

The three scales, making up this cluster, deal with the principles of organisation, conservatism within business organisations and the value of organisational change and career mobility. Comparative results for M.I.T. and the University of Alberta were:

TABLE 3.3
MANAGEMENT THEORY AND ATTITUDES

<u>Scale</u>	<u>Univ.</u>	E	F	S ₁	S ₂	<u>t-test</u>
1. <u>Classical Management Theory</u>	U. of A.	1.95	2.23	2.03	2.20	2.1 (*)
Low score means belief in the classical theory	M.I.T.	2.12	2.42	1.92	2.20	(*)
2. <u>General Conservatism</u>	U. of A.	2.37	2.83	2.50	2.64	1.8
Low score means high conservatism	M.I.T.	2.12	2.53	2.23	2.40	(*)
3. <u>Change and Cosmopolitanism</u>	U. of A.	2.44	2.54	2.59	2.57	0.3
Low score means belief in the value of stability and low career movement	M.I.T.	2.53	2.62	2.62	2.69	(*)

See Figure 3.3 for a graphical representation of these results

Classical Management Theory. At both universities there was a significant change in student attitude, towards the faculty attitude, in the direction of decreased belief in the classical principles of organisation and management.

General Conservatism. The change in the M.I.T. students on this scale was significant. The students moved away from the executives and

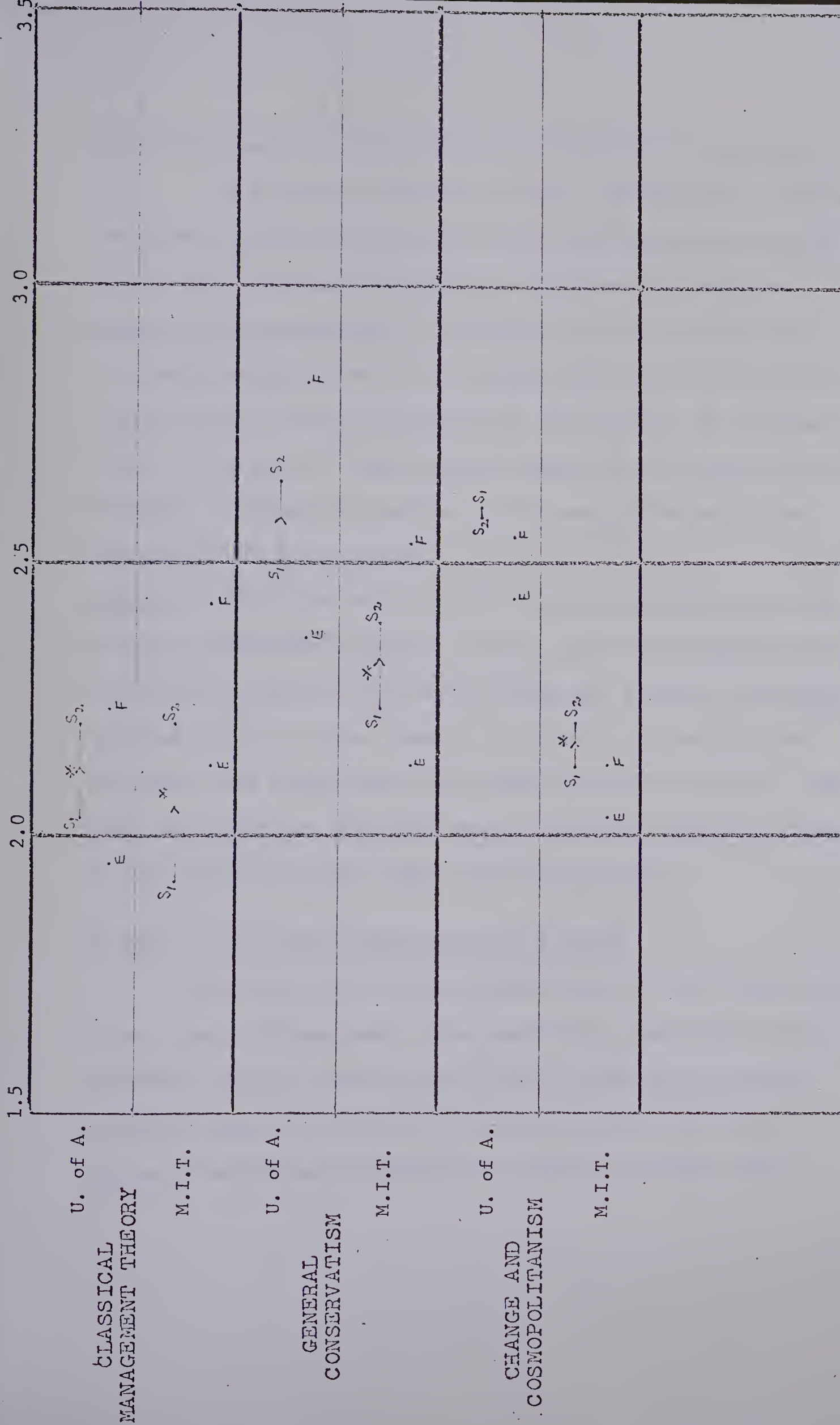


FIGURE 3.3

towards the faculty, in the direction of decreasing conservatism.

The University of Alberta students also moved away from the executive attitude and towards the faculty attitude considerably (t -score = 1.8), again in the direction of decreased conservatism.

Change and Cosmopolitanism. The change in the M.I.T. students in this scale was significant. The students moved away from both the faculty and the executive attitudes, in the direction of increased belief in the value of organisational change and inter-organisational mobility. No change, however, was noted among the University of Alberta students on this scale.

Summary. On all three scales in this cluster the students at M.I.T. exhibited significant changes in attitude. This was matched at the University of Alberta on the scale dealing with classical management theories, and, to a lesser extent, on the scale dealing with conservatism. The changes were in the same direction as at M.I.T. However, the University of Alberta students exhibited negligible change on the scale dealing with change and cosmopolitanism.

Cluster IV Attitudes Towards People and Groups

The four scales in this cluster deal with the "human relations" aspects of management. They specifically deal with, faith in employees' capacity and motivation, group incentives and decision-making as opposed to individual incentives and decision-making, and degree of interpersonal orientation. Comparative results were:

TABLE 3.4
ATTITUDES TOWARDS PEOPLE AND GROUPS

<u>Scale</u>	<u>Univ.</u>	E	F	S ₁	S ₂	<u>t-test</u>
1. <u>Faith in Workers</u>						
Low score means	U. of A.	2.22	1.84	2.33	2.47	2.4 (*)
high faith in workers	M.I.T.	2.28	2.24	2.59	2.30	(*)
2. <u>Individual vs</u>						
<u>Group Incentives</u>	U. of A.	2.49	2.39	2.47	2.55	0.8
Low score means	M.I.T.	2.53	2.58	2.53	2.47	--
belief in group						
incentives						
3. <u>Individual vs</u>						
<u>Group Decision-</u>	U. of A.	2.34	2.53	2.49	2.61	1.5
<u>Making</u>						
Low score means	M.I.T.	2.70	2.75	2.74	2.71	--
belief in group						
decision-making						
4. <u>Interpersonal Or-</u>						
<u>ientation</u>	U. of A.	2.31	2.41	2.24	2.36	1.4
Low score means	M.I.T.	2.41	2.45	2.44	2.33	(*)
high interpersonal						
orientation						

See Figure 3.4 for a graphical representation of these results

Faith in Workers. The change in the U. of A. students on this scale was significant (t-score - 2.4). The students moved away from both the executives and the faculty, in the direction of decreased faith in workers. At M.I.T. there was a significant change in student attitude, in the opposite direction. The students moved towards the executive and faculty positions, in the direction of increased faith in workers.

Individual vs Group Incentives. The change in means for the University of Alberta students, on this scale, was from 2.47 to 2.55. This represented a movement away from the faculty and executive attitudes, towards favouring individual incentives. The change in means for the

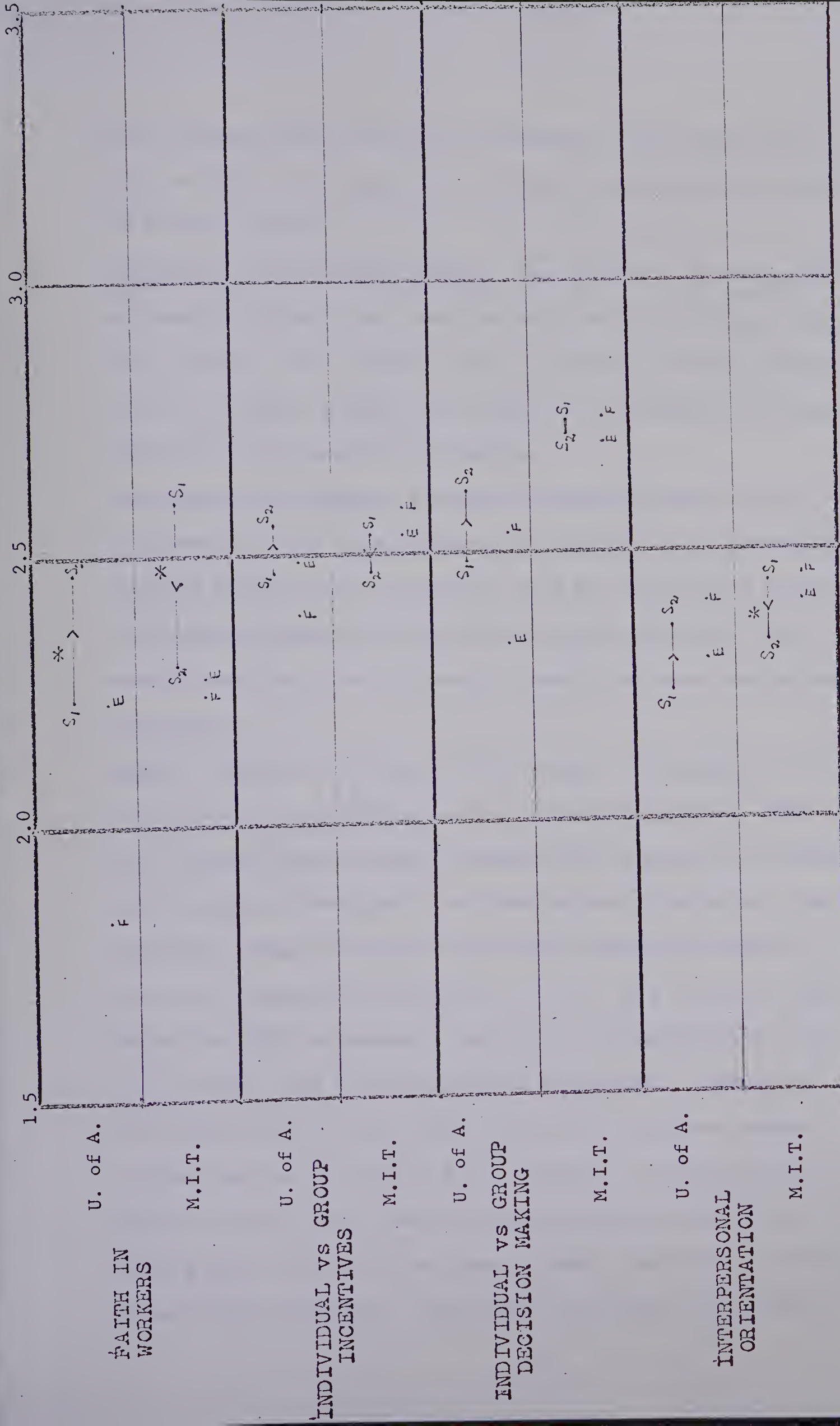


FIGURE 3.4

M.I.T. students was in the opposite direction, going from 2.53 to 2.47, but which also represented a movement away from the executive and faculty attitude.

Individual vs Group Decision-Making. The University of Alberta students moved noticeably away from the executives and faculty on this scale (t -score = 1.5), towards favouring individual decision-making. The M.I.T. students changed very slightly in the opposite direction, towards favouring group decision-making.

Interpersonal Orientation. A moderate change was noted in the U. of A. students (t -score = 1.4), towards the faculty, in the direction of decreased interpersonal orientation. At M.I.T. there was a significant change in student attitude in the opposite direction. The students moved away from the faculty, towards increased interpersonal orientation.

Summary. On all four scales, in this cluster, the students at M.I.T. and the University of Alberta moved in opposite directions. The M.I.T. students moved towards increased faith in workers, increased belief in group efforts and higher interpersonal orientation, with significant changes occurring on the scales dealing with faith in workers and interpersonal orientation. The U. of A. students moved towards less faith in workers, less belief in group incentives and decision-making, and less interpersonal orientation. However, as will be shown later in the chapter, there is a difference between the first year and second year M.B.A. students, at the University of Alberta, on these scales, and it is the first year students that contribute almost entirely to the change, towards less faith in workers, and less group orientation. The change in attitude of the second

year students, on these scales, was negligible.

Cluster V Individual-Organisation Relations

The three scales making up this cluster deal with the rights of the organisation to encroach upon individual privacy, cynicism about rising in the hierarchy in organisations, and cynicism about the amount of pressure applied in organisations, on the individual, towards conformity. Comparative results were:

TABLE 3.5

INDIVIDUAL-ORGANISATION RELATIONS

<u>Scale</u>	<u>Univ.</u>	<u>E</u>	<u>F</u>	<u>S</u>	<u>S</u>	<u>t-test</u>
1. <u>Right to Privacy</u>						
Low score means	U. of A.	2.66	3.03	2.87	2.90	0.3
that employees						
should not have	M.I.T.	2.55	3.07	2.72	2.94	(*)
rights to privacy						
2. <u>Cynicism about how</u>						
<u>to get Ahead</u>	U. of A.	2.34	2.31	2.52	2.90	4.3 (*)
Low score means						
low cynicism	M.I.T.	2.17	2.74	2.63	2.80	--
3. <u>Cynicism about Con-</u>						
<u>formity Pressure</u>	U. of A.	2.24	2.19	2.42	2.42	0.0
Low score means						
low cynicism	M.I.T.	1.87	2.32	2.28	2.32	--

See Figure 3.5 for a graphical representation of these results

Right to Privacy. A small change occurred in the University of Alberta students, towards belief in individual privacy, the movement being away from the executives and towards the faculty. At M.I.T., however, a significant change in student attitude occurred. The movement was away from the executives and towards the faculty, in the direction of favouring individual privacy.

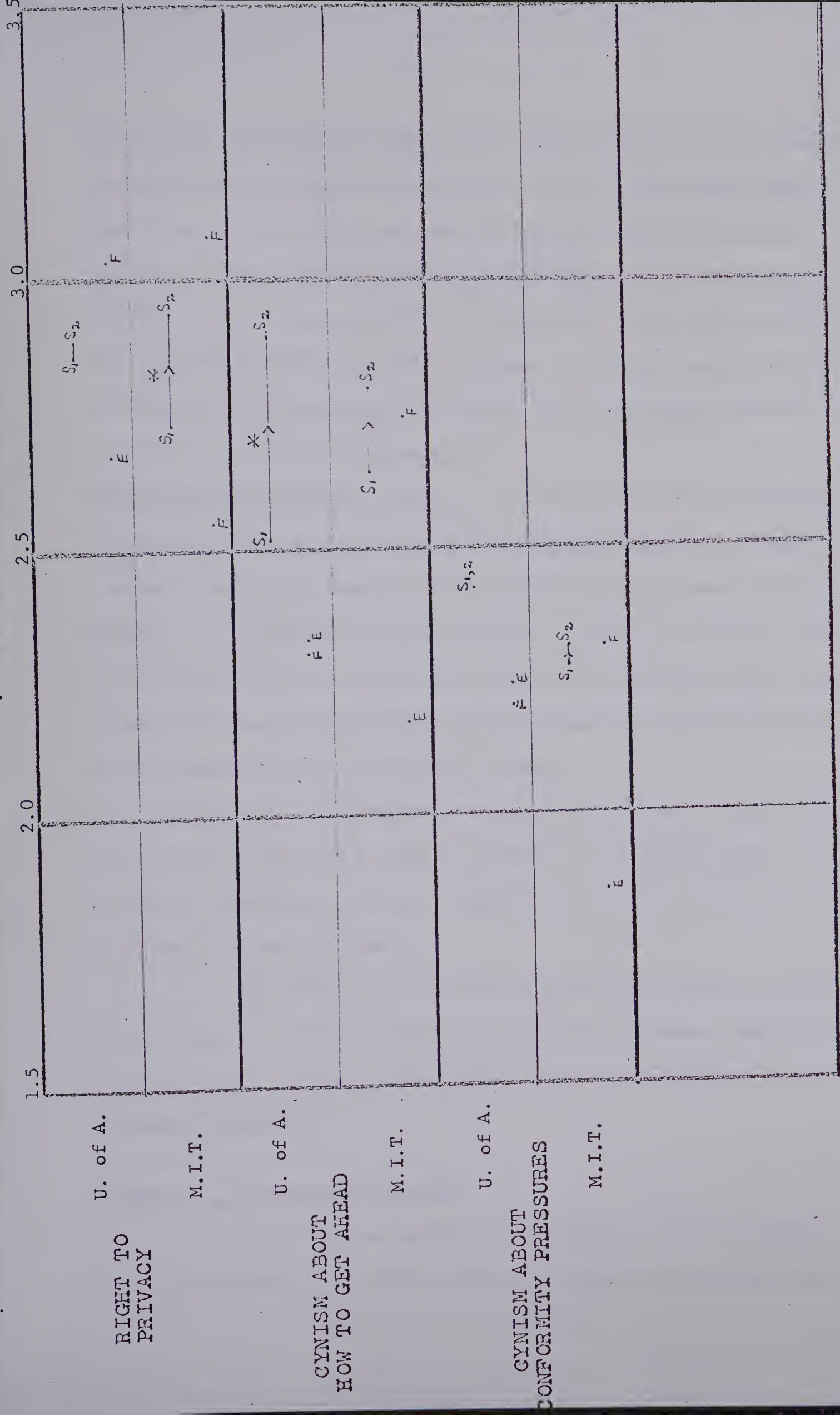


FIGURE 3.5

Cynicism about how to get Ahead. The change in the U. of A. students on this scale was significant (t -score = 4.3). The students moved away from both the executives and the faculty, towards increased cynicism. This movement, towards increased cynicism about getting ahead, was also observed at M.I.T. The students' mean score moved from 2.63 to 2.80, being towards and past the faculty position (2.74), and away from the executive position (2.17). The change, however, was not found to be significant at M.I.T.

Cynicism about Conformity Pressure. No change was noted, at either university, on this scale. The M.I.T. students exhibited a slight movement towards the faculty, in the direction of increased cynicism.

Summary. The changes in student attitude, at both universities, was in the same direction on all three scales. Both student bodies moved towards increased cynicism about getting ahead and conformity pressure, and increased belief in individual privacy.

At M.I.T. a significant change occurred, on the scale dealing with the individual's right to privacy, and a considerable, although not significant, change occurred, on the scale dealing with cynicism about getting ahead.

At the University of Alberta a significant change occurred in the students' attitude towards getting ahead. However negligible change occurred, on the scales dealing with individual privacy, and conformity pressure.

Cluster VI Miscellaneous Scales

The three scales, making up this cluster, do not contain a common content area. They deal with specialisation versus generalisa-

tion, as managerial requirements, belief in various truisms concerning management, and organisational size. Comparative results were:

TABLE 3.6

MISCELLANEOUS SCALES						
<u>Scale</u>	<u>Univ.</u>	E	F	S ₁	S ₂	<u>t-test</u>
1. <u>Specialisation vs General Skills</u>						
Low score means	U. of A.	2.64	2.26	2.38	2.17	2.5 (*)
belief in general skills	M.I.T.	2.71	2.64	2.47	2.44	--
2. <u>Management Truisms</u>						
Low score means	U. of A.	2.08	2.43	2.21	2.35	2.0 (*)
belief in the various items	M.I.T.	2.16	2.52	2.21	2.26	--
3. <u>Corporation Size</u>						
Low score means	U. of A.	2.23	2.27	2.56	2.56	0.0
favouring large corporations over small ones	M.I.T.	2.38	2.51	2.49	2.52	--

See Figure 3.6 for a graphical representation of these results

Specialisation vs General Skills. The change in the University of Alberta students on this scale was significant (t-score = 2.5). The students moved away from the executives and towards the faculty, in the direction of increased belief in general skills for success as a manager. A slight movement (2.47 to 2.44), was noted in the same direction, for the M.I.T. students, and this movement was away from the faculty and executive positions, towards increased belief in the value of general skills.

Management Truisms. The change in the University of Alberta students on this scale was significant (t-score = 2.0). The students moved away from the executives and towards the faculty, in the direction of decreased belief in the various truisms concerning management. A

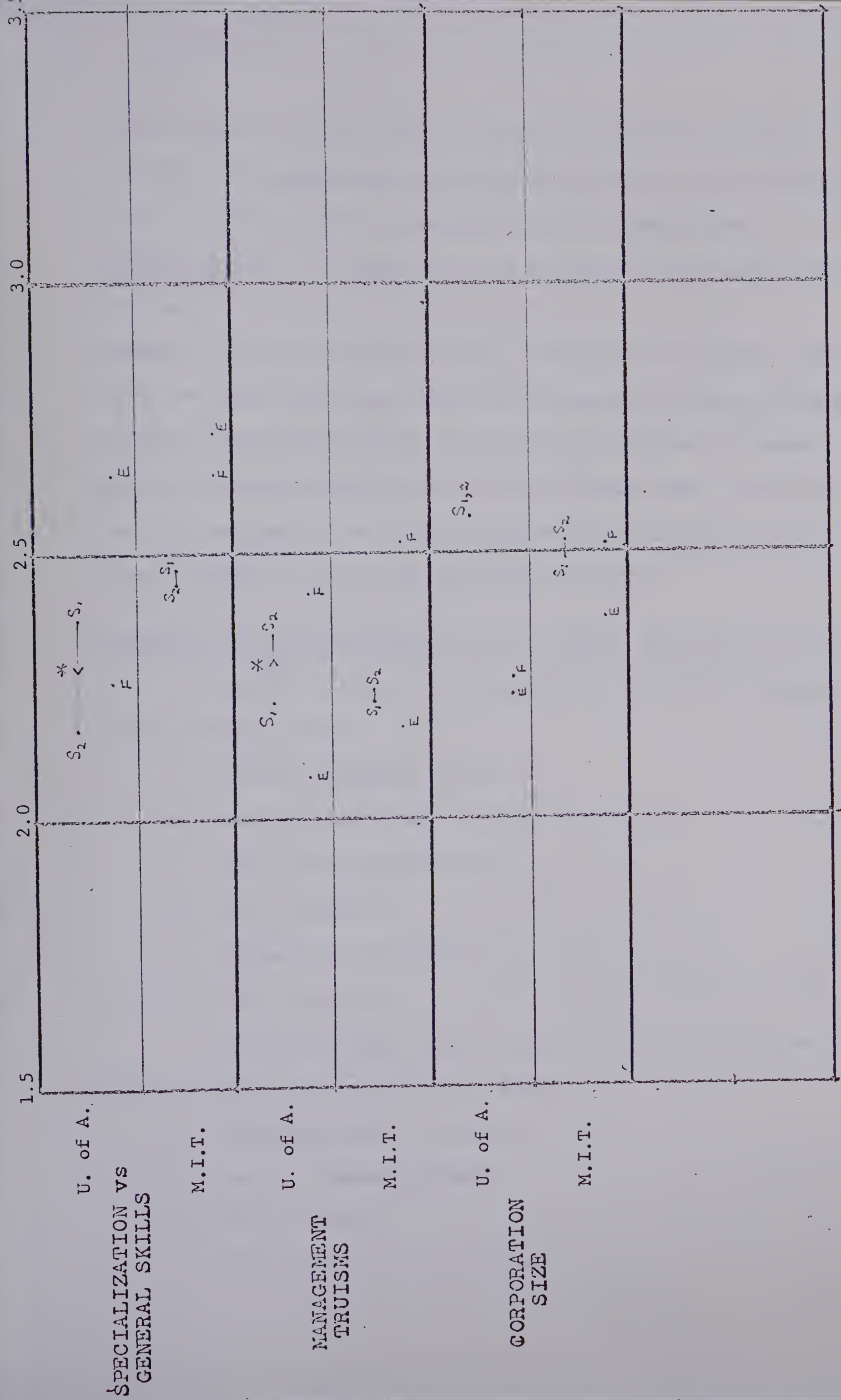


FIGURE 3.6

slight movement (2.21 to 2.24), was noted in the M.I.T. students' attitude. This movement was away from the executives and towards the faculty, in the direction of decreased belief in the truisms.

Corporation Size. No change was noted in either student group, on this scale.

Summary. Negligible change was noted, in the M.I.T. students' attitudes, on these three scales, while the University of Alberta students exhibited significant changes, towards increased belief in general skills and decreased belief in the various truisms about corporations and their management. No change was observed in the University of Alberta students, on the issue of corporation size.

Summary of the Attitude Changes at M.I.T. and the University of Alberta

Significant changes were observed, for the M.I.T. students, on the following scales:

7. Classical Management Theory
8. General Conservatism
9. Change and Cosmopolitanism
10. Faith in Workers
13. Interpersonal Orientation
14. Right to Privacy.

Significant changes were observed, for the University of Alberta students, on the following scales:

2. Business-Government Relations
7. Classical Management Theory
10. Faith in Workers
15. Cynicism about how to get Ahead

17. Specialisation vs General Skills
18. Management Truisms.

The students at the University of Alberta and M.I.T. were found to move in the same direction on the following scales:

3. Corporate Responsibility
5. General Cynicism
7. Classical Management Theory (significant at both)
8. General Conservatism (significant at M.I.T.)
11. Right to Privacy
15. Cynicism about how to get Ahead (significant at U. of A.)
17. Specialisation vs General Skills (significant at U. of A.)
18. Management Truisms (significant at U. of A.).

The student bodies moved in opposite directions on the following scales:

4. Relations to Society
10. Faith in Workers (significant at both)
11. Individual vs Group Incentives
12. Individual vs Group Decision-Making
13. Interpersonal Orientation (significant at M.I.T.).

No change was observed at either university on the following scales:

6. Amoralism of Managerial Role
16. Cynicism about Conformity Pressure
19. Corporation Size.

The University of Alberta students changed, while M.I.T. students remained the same, on the scales:

1. Management-Labour Relations
2. Business-Government Relations (significant).

The M.I.T. students changed, while the University of Alberta students remained the same, on the scale:

9. Change and Cosmopolitanism (significant).

The M.I.T. M.B.A. students changed their attitudes, in the direction, given by, moving away from the executive attitude towards the faculty attitude, on 11 of the 14 scales, for which some change was observed. These were:

3. Corporate Responsibility
4. Relations to Society
5. General Cynicism
7. Classical Management Theory (significant)
8. General Conservatism (significant)
9. Change and Cosmopolitanism (significant)
10. Faith in Workers (significant)
14. Right to Privacy (significant)
15. Cynicism about how to get Ahead
17. Specialisation vs General Skills
18. Management Truisms.

They were found to move in the opposite direction in the scales dealing with:

11. Individual vs Group Incentives
12. Individual vs Group Decision-Making
13. Interpersonal Orientation (significant).

The University of Alberta M.B.A. students changed their attitudes, in the direction, given by moving away from the executive attitude and towards the faculty attitude, on 11 of the 15 scales, for which some

change was observed. These were:

1. Management-Labour Relations
2. Business-Government Relations (significant)
3. Corporate Responsibility
5. General Cynicism
7. Classical Management Theory (significant)
8. General Conservatism
12. Individual vs Group Incentives
13. Individual vs Group Decision-Making
17. Specialisation vs General Skills (significant)
18. Management Truisms (significant).

They were found to move in the opposite direction on the scales dealing with:

4. Business Relations to Society
10. Faith in Workers (significant)
11. Individual vs Group Incentives
15. Cynicism about how to get Ahead (significant).

COMPARATIVE VALUES OF THE GROUPS SURVEYED AT

M.I.T. AND THE UNIVERSITY OF ALBERTA

Analysis

The previous section covered attitude change in the M.B.A. student bodies at M.I.T. and the University of Alberta. This section will compare the values held by the executives, faculty and the graduate students, at the commencement of their programs, at M.I.T. and the University of Alberta. The results are presented in tabular form, in a similar fashion to the previous section.

For comparison purposes, the faculty have been dichotomised into two groups:

(1) Humanities

Organisational Behaviour	(10)	(13)
Industrial Relations	(2)	(5)
Administrative Policy	(2)	(4)

(2) Quantitative

Finance, Economics, Accounting	(12)	(10)
Marketing	(4)	(5)
Production, Quantitative Methods	(2)	(13)

The figures in parentheses give the number of faculty specialising in each area, at the University of Alberta and M.I.T. respectively. The symbols used in the tables represent:

S	Students (Initial Testing)	(63)	(73)
E	Executives	(59)	(42)
F	Faculty	(32)	(54)
H	Behavioural sub-group of Faculty	(14)	(22)
Q	Quantitative sub-group of Faculty	(18)	(28)

The figures in parentheses represent the number in each group at the University of Alberta and M.I.T. respectively.⁶

Cluster I Business in Society

Results for the four scales, making up this scale, are given in Table 3.7.

Management-Labour Relations. Little difference was found, between the two student bodies, on this scale. At the University of Alberta the faculty tended to favour labour intervention in business, slightly

⁶It would be desirable to determine the significance of differences in executive, faculty and student values, at the University of Alberta and at M.I.T., and compare the results. The t-test, for significance of differences between the group means, was able to be carried out at the University of Alberta. However, the standard deviations, for the group scores at M.I.T., were not available, and therefore the t-tests could not be carried out.

more than the executives ($E = 2.61$, $F = 2.75$). However, at M.I.T., there was a wide divergence of opinion between the faculty and executives ($E = 2.25$, $F = 2.95$). The executives were strongly opposed to union intervention, while the faculty were strongly in favour of it.

TABLE 3.7

BUSINESS IN SOCIETY

<u>Scale</u>	<u>Univ.</u>	S	E	F	H	Q
1. <u>Management-Labour Relations</u>	U. of A.	2.79	2.61	2.75	2.77	2.74
Low score means favouring freedom from labour intervention	M.I.T.	2.74	2.25	2.95	2.89	3.01
2. <u>Business-Government Relations</u>	U. of A.	2.64	2.65	2.84	2.84	2.84
Low score means favouring freedom from government intervention	M.I.T.	2.45	2.00	2.78	2.78	2.78
3. <u>Corporate Responsibility</u>	U. of A.	2.45	2.57	2.72	2.62	2.79
Low score means belief in broad corporate responsibility	M.I.T.	2.72	2.56	2.76	2.66	2.84
4. <u>Relations to Society</u>	U. of A.	2.68	2.78	2.48	2.67	2.34
Low score means low cynicism	M.I.T.	2.73	2.44	2.39	2.39	2.39

Business-Government Relations. The results obtained for this scale were similar to those obtained from scale one. The students tended to differ more on this scale. The University of Alberta students were in favour of government intervention in industry, while the M.I.T. students were opposed to it. Again, there was a big difference between the executives and faculty at M.I.T. ($E = 2.00$, $F = 2.78$). This was exhibited to a much lesser degree in Alberta ($E = 2.65$,

$F = 2.84$). The faculty, in both cases, favoured government intervention, while the executives were opposed to it. A big difference was observed here, between the Canadian and American executives (Canada = 2.65, America = 2.00).

Corporate Responsibility. Little difference was noted, between the faculty at the two universities, or between the executives. However, the University of Alberta students tended to believe more, in the concept of corporate responsibility, than the M.I.T. students (U. of A. = 2.45, M.I.T. = 2.72). At both universities the sub-groups of the faculty differed moderately (U. of A., t -score = 0.7). The "humanities" groups tended to believe more in corporate responsibility than the "quantitative" groups.

Relations to Society. Little difference was noted, between the student bodies or the faculties, at the two universities, on this scale. However, the Albertan executives tended to be more cynical than their counterparts in the M.I.T. study (U. of A. = 2.78, M.I.T. = 2.44).

Little difference was noted, between the faculty sub-groups, at M.I.T. However, the "humanities" sub-group at the University of Alberta gave much more cynical responses on this scale than the "quantitative" group (t -score = 1.6).

Summary. (1) The students, at the University of Alberta, tended to support labour and government intervention in business, and believed in broad corporate responsibility, more than the M.I.T. students.

(2) The executives, at M.I.T., were much more oriented to private enterprise than their counterparts in Alberta. They

believed in freedom from labour and government intervention in business, and were less cynical about the relations of industry with its environment.

(3) The faculties, at the two universities, did not differ widely on these scales, except that, more union sympathy existed among the M.I.T. faculty than the University of Alberta faculty.

Cluster II General Cynicism

Results for the two scales in this cluster were:

TABLE 3.8

GENERAL CYNICISM

<u>Scale</u>	<u>Univ.</u>	S	E	F	H	Q
1. <u>General Cynicism</u>	U. of A.	2.44	2.28	2.39	2.60	2.25
Low score means						
low cynicism	M.I.T.	2.48	2.27	2.56	2.47	2.64
2. <u>Amorality of Managerial Role</u>	U. of A.	2.22	2.23	2.09	2.49	1.82
Low score means						
belief that one can be moral as a manager	M.I.T.	2.10	1.65	1.93	1.72	2.11

General Cynicism. Little difference was observed, among the student bodies, on this scale. In both studies, however, the faculty was found to be more cynical than the executives. The executive bodies tended to differ little, in the two studies, but the M.I.T. faculty showed more cynicism than the University of Alberta faculty. A significant difference was obtained between the faculty sub-groups at the University of Alberta (t -score = 2.1), with the "humanities" group being more cynical than the "quantitative" group. This position was reversed at M.I.T., where the "quantitative" group tended to be

the more cynical of the two groups.

Amorality of Managerial Role. On this scale all three groups of students, executives and faculty at the University of Alberta, were found to be more cynical about managerial role than their M.I.T. counterparts. Again, there was a significant difference between the faculty sub-groups at the University of Alberta (t -score = 3.7), with the "humanities" group being more cynical than the "quantitative" group. Once again, this position was reversed noticeably at M.I.T. ($H = 1.72$, $Q = 2.11$), where the "quantitative" group was the more cynical of the two.

Summary. (1) There was little difference between the students at the two universities, on this cluster, although both sets of students tended to be more cynical than their faculty.

(2) The executive bodies differed little on the first scale, but the executives in the M.I.T. study believed, much more than the Albertan executives, that one can be moral as a manager.

(3) The faculty at M.I.T. were more cynical than the University of Alberta faculty on the first scale, but were less cynical on the items dealing with the amorality of managerial role.

Cluster III Management Theory and Attitudes

Results for the three scales in this cluster are given in Table 3.9.

Classical Management Theory. The students at each university believed much more in the classical theories of management than their faculties, with the M.I.T. students showing more belief in these theories than the Albertan students ($U. of A. = 2.03$, $M.I.T. = 1.92$). The executives, in the two studies, also believed more in

the classical theories than the faculties. However, here, the Albertan executives showed more belief in the classical theories than the M.I.T. executives (U. of A. = 1.95, M.I.T. = 2.12). Comparing the two faculties, the University of Alberta faculty were found to believe more in these theories than the M.I.T. faculty (U. of A. = 2.23, M.I.T. = 2.42). Considerable difference was found between the faculty sub-groups on this scale (U. of A. t-score = 1.8). At both universities the "quantitative" group believed more in the classical theories than the "humanities" group.

TABLE 3.9

MANAGEMENT THEORY AND ATTITUDES

<u>Scale</u>	<u>Univ.</u>	S	E	F	H	Q
1. <u>Classical Management Theory</u>	U. of A.	2.03	1.95	2.23	2.49	2.05
Low score means belief in the classical theory	M.I.T.	1.92	2.12	2.42	2.58	2.30
2. <u>General Conservatism</u>	U. of A.	2.50	2.37	2.83	2.80	2.84
Low score means high conservatism	M.I.T.	2.23	2.12	2.53	2.70	2.40
3. <u>Change and Cosmopolitanism</u>	U. of A.	2.59	2.44	2.54	2.76	2.38
Low score means belief in the value of stability and low career movement	M.I.T.	2.62	2.53	2.62	2.62	2.62

General Conservatism. All three groups, of students, executives and faculty, were less conservative at the University of Alberta than the corresponding groups at M.I.T. At both universities, the order of decreasing conservatism was executives, students, faculty. The faculty sub-groups showed no difference in conservatism at the

University of Alberta. However at M.I.T. the "quantitative" group were found to be more conservative than the "humanities" group.

Change and Cosmopolitanism. Little difference was noted, between the two universities, on this scale. However, all three groups, at the University of Alberta, tended to favour stability and low career movement, more than the corresponding groups at M.I.T. A significant difference was observed between the faculty sub-groups, at the University of Alberta (t -score = 2.1), with the "quantitative" group favouring stability and low career movement, more than the "humanities" group. No difference was observed at M.I.T.

Summary. (1) The students at the University of Alberta were less conservative, and believed less in classical management theories, than the students at M.I.T.

(2) The executives at the University of Alberta believed more in classical management theories, and the value of stability, and yet, were less conservative than their M.I.T. counterparts.

(3) The faculty at the University of Alberta, like the executives, believed more in the classical theories of management and the value of stability, but were less conservative than the M.I.T. faculty.

Cluster IV Attitudes Towards People and Groups

The results for the four scales in this cluster are given in Table 3.10.

Faith in Workers. The students and the faculty at the University of Alberta exhibited more faith in workers than their counterparts at M.I.T. In addition, at both universities, the faculty showed considerably more faith in workers than their students showed. Little

difference was observed, between the executive groups, in the two studies. A significant difference was observed between the faculty sub-groups at the University of Alberta (t-score = 2.2), with the "humanities" group having more faith in the working man than the "quantitative" group. A similar difference was observed at M.I.T. (H = 1.97, Q = 2.45).

TABLE 3.10

ATTITUDES TOWARDS PEOPLE AND GROUPS

<u>Scale</u>	<u>Univ.</u>	S	E	F	H	Q
1. <u>Faith in Workers</u>						
Low score means high faith in workers	U. of A.	2.23	2.22	1.84	1.65	1.97
	M.I.T.	2.59	2.28	2.24	1.97	2.45
2. <u>Individual vs Group Incentives</u>						
Low score means belief in group incentives	U. of A.	2.47	2.49	2.39	2.38	2.39
	M.I.T.	2.53	2.53	2.58	2.25	2.84
3. <u>Individual vs Group Decision-Making</u>						
Low score means belief in group decision-making	U. of A.	2.49	2.34	2.53	2.40	2.61
	M.I.T.	2.76	2.70	2.75	2.57	2.90
4. <u>Interpersonal Orientation</u>						
Low score means high interpersonal orientation	U. of A.	2.24	2.31	2.41	2.26	2.51
	M.I.T.	2.44	2.41	2.45	2.37	2.51

Individual vs Group Incentives. Little difference was noted, between the two universities, on this scale, in the student and executive bodies. The faculty at the University of Alberta, however, tended to believe more in group incentives than the M.I.T. faculty (U. of A. = 2.39, M.I.T. = 2.58). Little difference was noted, between the faculty sub-groups, at the University of Alberta. However at M.I.T.

the "humanities" group had considerably more confidence in group incentives in industry than the "quantitative" group ($H = 2.25$, $Q = 2.84$).

Individual vs Group Decision-Making. All three groups of students, executives and faculty, at the University of Alberta believed more in group decision-making than the corresponding groups at M.I.T. The dichotomisation of the faculty at both universities showed that, greater belief in group decision-making was exhibited by the "humanities" group than by the "quantitative" group (U. of A. - $H = 2.40$, $Q = 2.61$; M.I.T. - $H = 2.57$, $Q = 2.90$).

Interpersonal Orientation. Once again, all three groups of students, executives and faculty at the University of Alberta, showed more interpersonal orientation than the corresponding groups at M.I.T. A moderate difference was noted between the faculty sub-groups at the University of Alberta (t -score = 1.2), with the "humanities" group being more interpersonally oriented than the "quantitative" group. The same was found to be true at M.I.T. ($H = 2.37$, $Q = 2.51$).

Summary. The pattern was the same for all three groups, on this cluster. The student, executive and faculty groups at the University of Alberta consistently showed, greater faith in workers, greater belief in group incentives and decision-making, and were more interpersonally oriented, than the similar groups at M.I.T. At both universities the "humanities" sub-groups of the faculties consistently showed greater faith in workers, greater belief in group efforts, and more interpersonal orientation, than the "quantitative" sub-groups.

Cluster V Individual-Organisation Relations

Results for the three scales in this cluster were:

TABLE 3.11

INDIVIDUAL- ORGANISATION RELATIONS

<u>Scale</u>	<u>Univ.</u>	S	E	F	H	Q
1. <u>Right to Privacy</u>						
Low score means	U. of A.	2.87	2.66	3.03	3.17	2.94
that employee						
should not have	M.I.T.	2.72	2.55	3.07	3.07	3.07
right to privacy						
2. <u>Cynicism about</u>						
<u>how to get Ahead</u>	U. of A.	2.52	2.34	2.31	2.54	2.16
Low score means						
low cynicism	M.I.T.	2.63	2.17	2.74	2.79	2.71
3. <u>Cynicism about</u>						
<u>Conformity</u>	U. of A.	2.42	2.24	2.19	2.56	1.93
<u>Pressures</u>						
Low score means	M.I.T.	2.28	1.87	2.32	2.40	2.27
low cynicism						

Right to Privacy. The student and executive bodies, at the University of Alberta, believed more in individual privacy than their counterparts at M.I.T. Little difference was noted between the faculties. At both universities, a similar ordering of the groups was observed on this issue; executives, students, faculty; with the executives believing least in individual privacy, and the faculty believing most (U. of A. - E = 2.66, S = 2.87, F = 3.03; M.I.T. = E = 2.55, S = 2.72, F = 3.07). A moderate difference was noted, between the faculty sub-groups, at the University of Alberta (t-score = 1.0), with the "humanities" group believing more in the right of the individual to privacy, than the "quantitative" group. No difference in the faculty sub-groups was observed at M.I.T.

Cynicism about how to get Ahead. The faculty at M.I.T. tended to

be much more cynical, about getting ahead in business, than the University of Alberta faculty (M.I.T. = 2.74, U. of A. = 2.31). The same was true, to a lesser degree, for the student groups (M.I.T. = 2.63, U. of A. = 2.52). However, the position was reversed for the executive groups, with the Albertan executives being more cynical than their counterparts at M.I.T. (U. of A. = 2.34, M.I.T. = 2.17). The "humanities" sub-group at the University of Alberta exhibited more cynicism than the "quantitative" sub-group (t-score = 1.5). The same was true, but to a much lesser degree, at M.I.T. (H = 2.79, Q = 2.71).

Cynicism about Conformity Pressure. The students, at the University of Alberta, tended to be more cynical about conformity pressure than the M.I.T. students (U. of A. = 2.42, M.I.T. = 2.28). The same was true for the executive groups (U. of A. = 2.24, M.I.T. = 1.87). However the M.I.T. faculty showed more cynicism than the Alberta faculty (M.I.T. = 2.32, U. of A. = 2.19). A significant difference was observed, between the faculty sub-groups at the University of Alberta (t-score = 2.6), with the "humanities" group being more cynical than the "quantitative" group. A small difference, in the same direction, was noted at M.I.T. (H = 2.40, Q = 2.27).

Summary. (1) The students at the University of Alberta believed more in individual privacy, and were more cynical about conformity pressure, than the M.I.T. students. However, they were less cynical than the M.I.T. students about getting ahead in industry.

(2) The Albertan executives believed more in individual privacy, and were more cynical about getting ahead and about conformity pressures, than the M.I.T. executives.

(3) There was little difference in the faculties, at the two universities, on the issue of individual privacy. However, the faculty, on the other two scales, reversed the findings for the executives. The M.I.T. faculty were more cynical, about getting ahead and about conformity pressures, than the University of Alberta faculty.

Cluster VI Miscellaneous Scales

Results for the three scales in this cluster were:

TABLE 3.12

MISCELLANEOUS SCALES

<u>Scale</u>	<u>Univ.</u>	S	E	F	H	Q
1. <u>Specialisation vs General Skills</u>						
Low score means	U. of A.	2.38	2.64	2.26	2.41	2.16
belief in general skills	M.I.T.	2.47	2.71	2.64	2.64	2.64
2. <u>Management Truisms</u>						
Low score means	U. of A.	2.21	2.08	2.43	2.39	2.45
belief in the various items	M.I.T.	2.21	2.16	2.52	2.52	2.52
3. <u>Corporation Size</u>						
Low score means	U. of A.	2.56	2.23	2.27	2.00	2.45
favouring large corporations over small ones	M.I.T.	2.49	2.38	2.51	2.38	2.60

Specialisation vs General Skills. All three groups of students, executives and faculty, at the University of Alberta, believed in the value of having general skills as a manager, more than the corresponding groups at M.I.T. At both universities, the executives studied, showed more belief in specialisation, as a managerial attribute, than the other two groups surveyed. A considerable difference was observed between the faculty sub-groups, at the University of

Alberta (t -score = 1.2), with the "quantitative" group being more in favour of general skills than the "humanities" group. No difference was observed at M.I.T. between the faculty sub-groups.

Management Truisms. Little difference was observed between the two universities for the students, executives and faculty. However, at each university, the groups lined up in the order: executives, students, faculty; with the executive believing most in the various management truisms, and the faculty believing least.

Corporation Size. The faculty and the executives at the University of Alberta favoured large corporations more than the corresponding groups at M.I.T. However the Albertan students tended to favour small companies rather than large corporations, while the M.I.T. students favoured large corporations (U. of A. = 2.56, M.I.T. = 2.49). A considerable difference was observed between the faculty sub-groups at the University of Alberta (t -score = 1.7), with the "humanities" group favouring large corporations and the "quantitative" group favouring small companies. A similar difference was observed at M.I.T. (H = 2.38, Q = 2.60).

Summary. (1) Little difference was observed between the students at the two universities on the scales in this cluster.

(2) Similarly there was little difference between the executives' attitudes, except that the Albertan executives tended to favour large corporations more than the M.I.T. executives.

(3) The faculty at the University of Alberta believed more in the value of general skills for good managers, and in the value of large corporations, than the faculty at M.I.T.

Summary of the Clusters

(1) On eight of the 19 scales the student groups surveyed tended to differ between the University of Alberta and M.I.T. On these scales the students at the University of Alberta tended to favour government intervention in industry, while, at the same time, believing that corporations should have a sense of responsibility towards the community, in which they are situated. They also showed higher faith in workers, more belief in group decision-making, and higher interpersonal orientation, than the M.I.T. students. In addition, the Albertan students favoured the individual more than the students at M.I.T., on the issues of privacy and conformity. On the issue of conservatism in industry, the M.I.T. students were found to be more conservative than the University of Alberta students.

(2) The executives surveyed at M.I.T. and Alberta differed in 12 of the 19 scales. The executives in Alberta were more in favour of labour and government intervention in business, and were more cynical about:

- (a) Business Relations with Society
- (b) Amoralism of Managerial Role
- (c) Getting ahead in Industry
- (d) Conformity Pressures in Industry,

than the M.I.T. executives. They also believed more in the classical management theories, but were less conservative than the M.I.T. executives. In addition, they believed in group decision-making, and favoured large corporations over small ones.

(3) The faculty at M.I.T. differed from the faculty at Alberta on 12 of the 19 scales. The faculty at M.I.T. were more cynical than the University of Alberta faculty about conformity pressures and getting ahead in business, but were less cynical about the amorality of managerial role. They showed less group orientation, less faith in workers, and were more in favour of small corporations, than the University of Alberta faculty. In addition the M.I.T. faculty favoured:

(a) Union intervention in business

(b) The need for specialised skills for managers

more than the faculty at the University of Alberta.

They also believed less in the classical theories of management, but were more conservative than the University of Alberta faculty.

THE EFFECT OF THE M.B.A. STUDENT SUB-GROUPS AT THE

UNIVERSITY OF ALBERTA

Introduction

The changes in the attitudes of the M.B.A. students at the University of Alberta, reported so far, have examined the total M.B.A. student body, which involves two distinct sub-groups.

First-Year Students. These students enter the M.B.A. from non-commerce backgrounds, such as arts, science and engineering. They are, therefore, new to the atmosphere of a business education program, and might be expected to display a certain amount of naiveté, about some of the problems involved in business. Because the environment is new to these students, they may be more readily

influenced by people who are more experienced in this area.⁷

Therefore, it is predicted that the first-year students would tend to show considerable attitude change, during the course of the year.

Second-Year Students. These students are a mixture of students coming from the first-year of the M.B.A. program and those students who have commerce degrees and are, therefore, eligible to by-pass the first year of the program. These students are more familiar with the business school environment, and may have already adopted a certain amount of the attitudes of the faculty, or those of the business environment. Being familiar with the environment, they will not be so easily influenced by others as the students in the first year of the program.

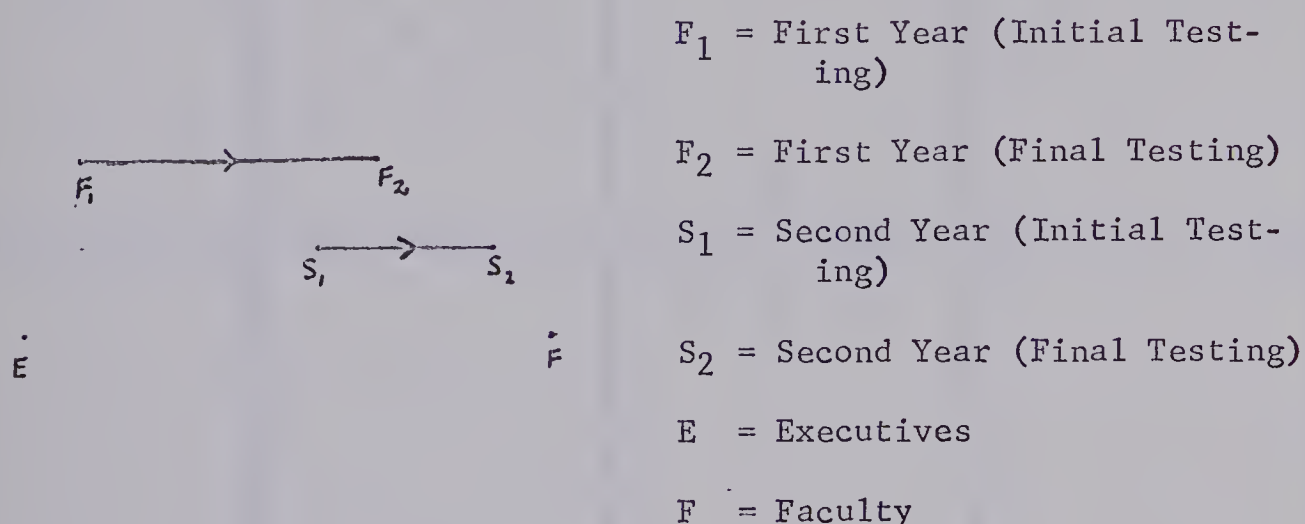
Another prediction of the second-year group might be that their initial attitudes would be similar to the final attitudes of the first-year students, if similarity between the two groups of students is assumed. However, this is not necessarily true. As Schein⁸ suggests, attitude change has two components: identification and internalisation. Attitude change associated with identification, does not become permanent until the refreezing process takes place, and the attitudes are internalised. Nearly all the second-year students have taken summer jobs in the business community, and may have reverted to some of the previous beliefs, or have been influenced by the business environment, in which they have worked.

⁷Edgar H. Schein, "Management Development as a Process of Influence", op. cit.

⁸Loc. cit.

In addition, the new students in second year, from commerce backgrounds, have not spent a year in the atmosphere of the M.B.A. program, and have not been exposed to the influences, that may have resulted in the attitude changes, observed for the first-year students.

Therefore, a model of students' attitudes, might be as follows:



Results

Presentation. The results for this section of the study are presented in graphical form, showing the group means for each scale (see Figure 3.7).

The letter symbols denote:

Faculty F (32)

Executives E (59)

M.B.A. Students

First Years (Initial Testing) F_1 (33)

First Years (Final Testing) F_2 (33)

Second Years (Initial Testing) S_1 (30)

Second Years (Final Testing) S_2 (29)

Total Group (Initial Testing) T_1 (63)

Total Group (Final Testing) T_2 (62)

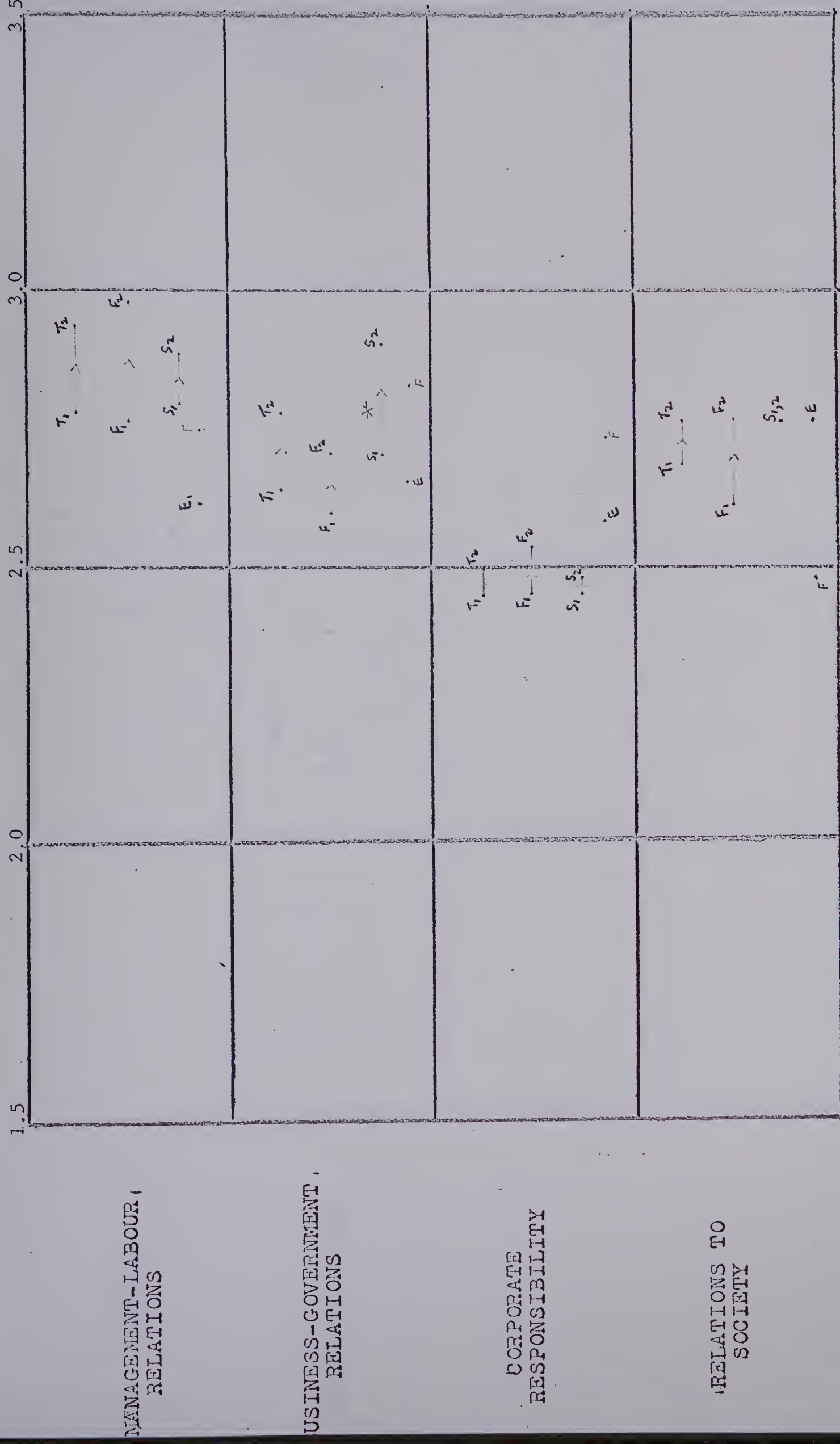


FIGURE 3.7

'GENERAL
CYNISM

AMORALITY OF
MANAGERIAL ROLE

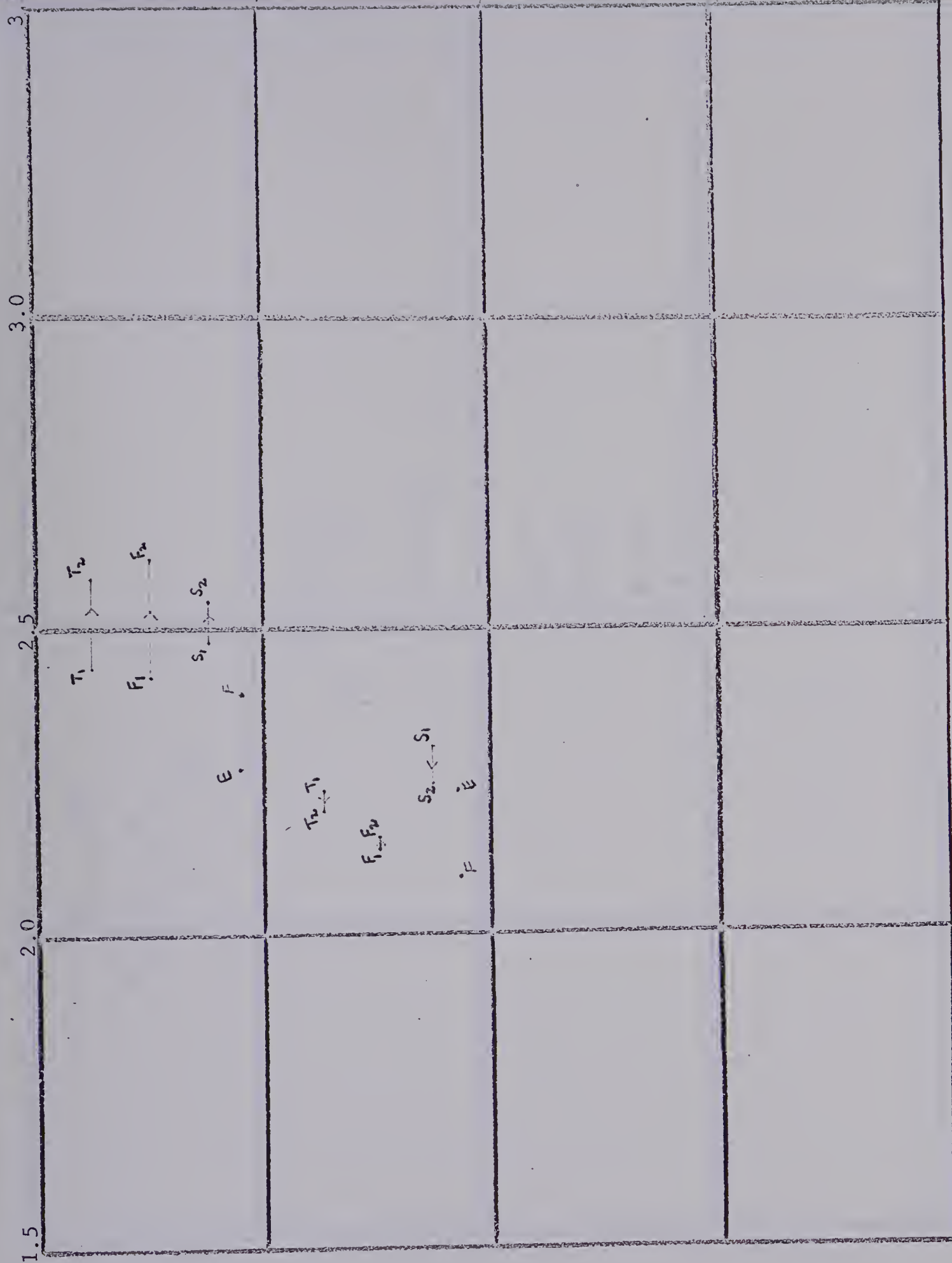


FIGURE 3.7 (contd.)

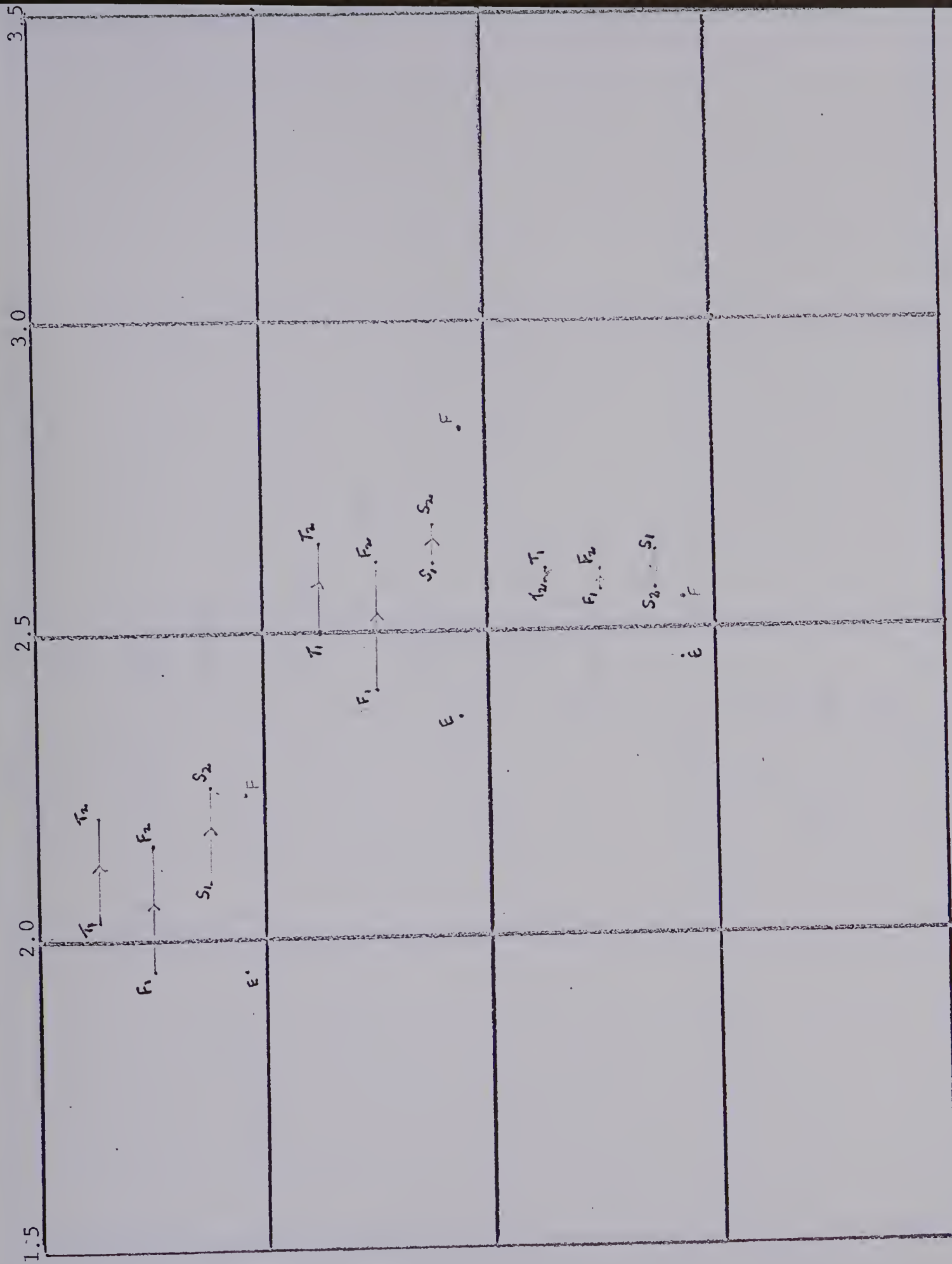


FIGURE 3.7 (contd.)

1.5 2.0 2.5 3.0 3

FAITH IN
WORKERS

INDIVIDUAL VS GROUP
INCENTIVES

INDIVIDUAL VS GROUP
DECISION MAKING

INTERPERSONAL
ORIENTATION

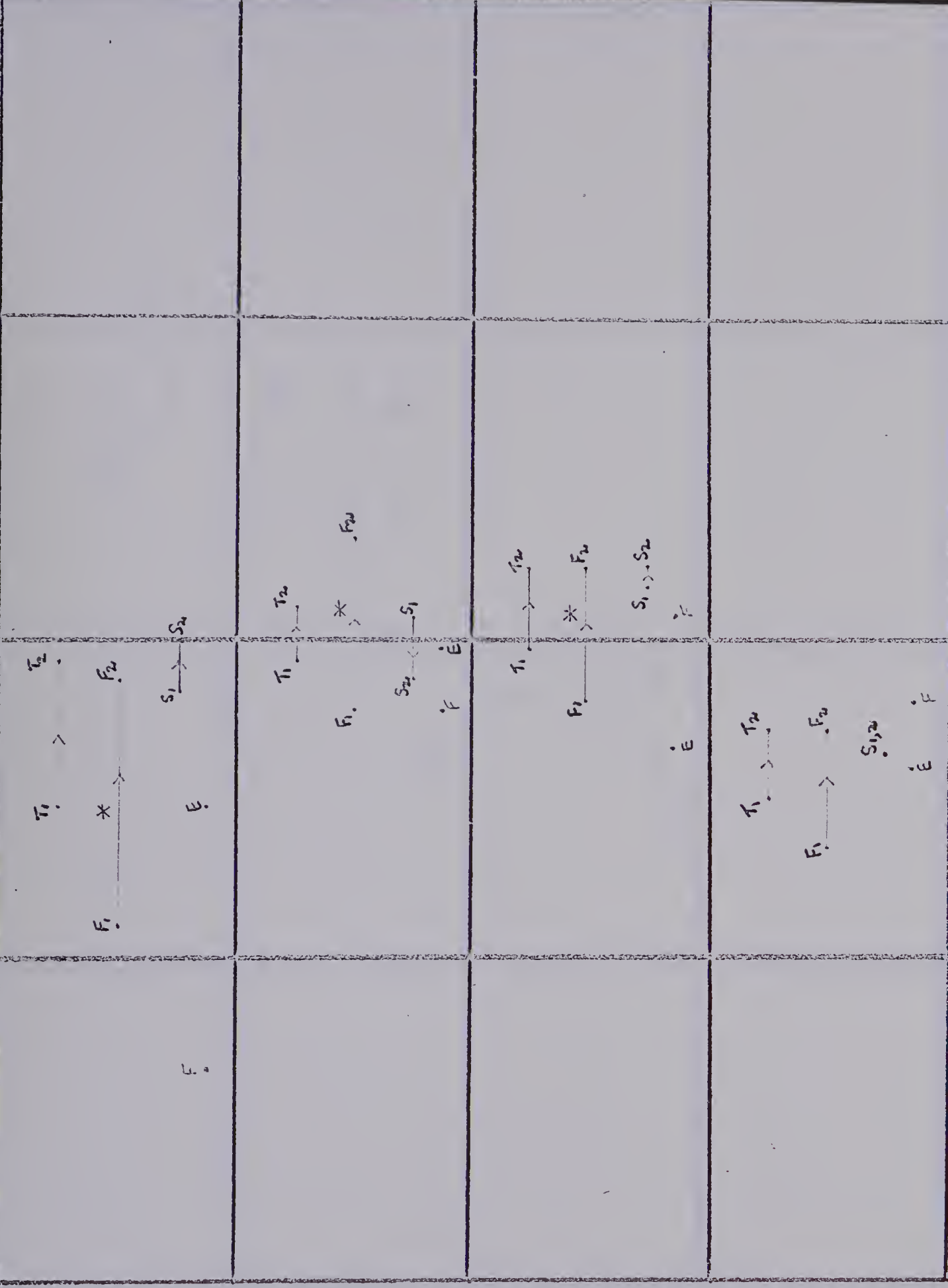


FIGURE 3.7 (contd.)

SPECIALIZATION vs
GENERAL SKILLS

MANAGEMENT
TRUIISMS

CORPORATION
SIZE

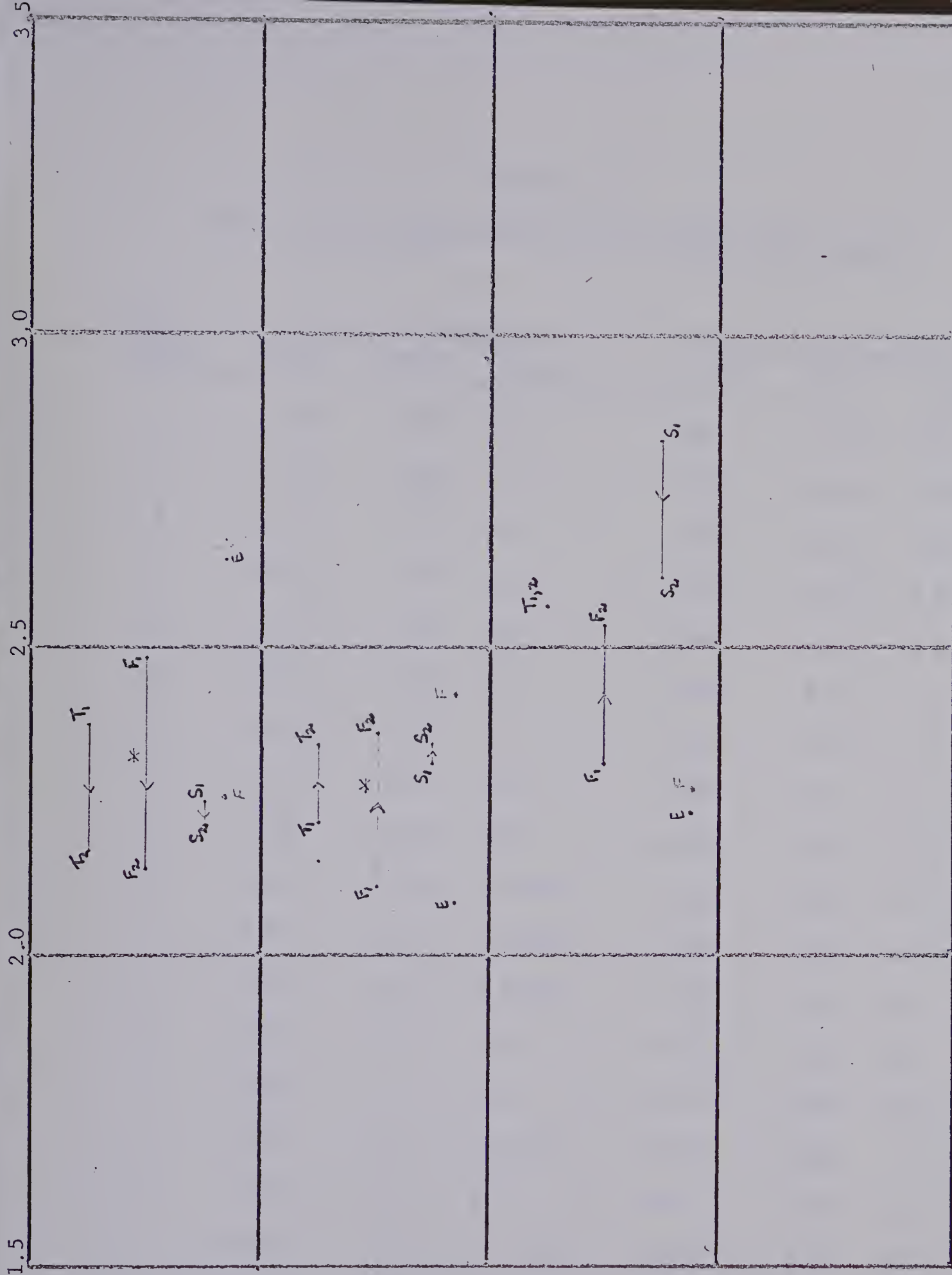


FIGURE 3.7 (contd.)

TABLE 3.13

TABLE OF MEAN SCORES FOR ATTITUDE CHANGES WITHIN GROUPS

Scale Number	First Year Students			Second Year Students		
	Initial	Final	t-score	Initial	Final	t-score
1	2.78	2.98	1.8	2.81	2.90	0.8
2	2.59	2.69	1.0	2.69	2.91	2.3 (*)
3	2.46	2.53	0.5	2.45	2.48	0.2
4	2.61	2.77	1.4	2.77	2.78	0.1
5	2.42	2.60	1.8	2.48	2.55	0.7
6	2.13	2.15	0.1	2.32	2.26	0.5
7	1.96	2.15	1.4	2.09	2.26	1.7
8	2.41	2.61	1.8	2.60	2.67	0.7
9	2.56	2.59	0.3	2.62	2.56	0.7
10	2.05	2.44	2.8 (*)	2.42	2.50	0.6
11	2.40	2.65	1.9 (*)	2.53	2.44	0.5
12	2.41	2.61	2.0 (*)	2.58	2.61	0.3
13	2.16	2.37	1.8	2.32	2.33	0.1
14	2.88	2.78	0.7	2.86	3.04	1.4
15	2.49	2.92	3.9 (*)	2.55	2.87	2.3 (*)
16	2.38	2.50	0.7	2.46	2.33	1.0
17	2.49	2.14	3.3 (*)	2.26	2.21	0.4
18	2.11	2.36	2.7 (*)	2.32	2.35	0.3
19	2.32	2.53	1.4	2.83	2.60	1.4

(*) indicates change is significant at the 0.05 level.

The figures in parentheses denote group sizes. t-tests were used for significance of attitude change for the student sub-groups (see Table 3.13), and an asterisk on the graphical presentation signifies that a significant change has occurred for the sub-group at the 0.05 level of significance.

Amount of Change. On 13 of the 19 scales the first-year students exhibited a greater change in attitude than the second-year students, during the course of the year (see Figure 3.7). On two of the scales the change was about the same, two scales showed little change in either group, and on only two scales did the second-years show a greater change than the first-years.

Direction of Change. On only four of the scales was the change in student attitude in opposite directions in the two groups. On these scales the first-year students changed towards favouring individual incentives over group incentives, company knowledge and use of personal information, and small corporations over large. They also moved towards increased cynicism about conformity pressures.

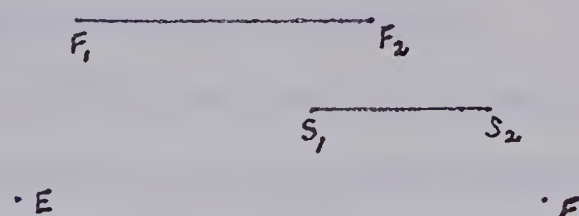
Analysis of the Results. There is a trend, in these results, for the first-year students to favour situations in which individuality is important and there is an opportunity for visibility.⁹

This move towards individuality on the part of the first-year students may, to some extent, explain the unexpected results on the human relations scales noted in the first section. Nearly all the change towards low faith in workers, high belief in individual

⁹James D. Thomson, Organizations in Action (New York: McGraw-Hill Inc., 1967), pp. 107-111.

efforts and low interpersonal orientation, is due to the first-year group. The second-year group changed little on these scales, perhaps reflecting the fact that they have a course in human relations in organizations, and that no similar course is taken in the first year. This course seems to have stopped the move towards individuality, on the part of the M.B.A. students.

The model, developed previously, for the retention of attitudes from first to second year, and the shift away from the executive position towards the faculty position, is adhered to approximately on 8 of the 19 scales (see Figure 3.7).



It is particularly well displayed on the scales dealing with classical management theory and general conservatism, and, to a lesser extent, on the scales dealing with labour and government intervention in business.

Summary

The general trend of these results is, that, attitude change is in the same direction within the two sub-groups of the M.B.A. students, and that, considerably more change takes place in the first year than in the second year.

CHAPTER IV

CONCLUSIONS AND LIMITATIONS OF THE STUDY

Introduction

The first section of this chapter will present an interpretation of the results and some conclusions to be drawn from the findings. The second section will deal with the limitations of the study and present some areas for further study.

INTERPRETATION OF THE RESULTS

Attitude Change in the M.B.A. Students

At both M.I.T. and the University of Alberta the change in attitudes were found to be in the same direction on virtually all the scales except those dealing with the human relations aspects of management. The magnitude of these changes was also found to be similar with the exceptions of:

- (1) The University of Alberta students became more liberal, during the course of their study, towards union and government intervention in business. The M.I.T. students did not change on these issues.
- (2) The M.I.T. students became strongly in favour of individual privacy where no such change was noted at the University of Alberta.

The Changes Tended to be in the Expected Directions.

The Students' Attitudes Moved Away from the Attitudes of the Executives at Both M.I.T. and the University of Alberta. The students at the University of Alberta started their M.B.A. program with

attitudes much closer to the executives' attitudes than was observed at M.I.T. However, the students changes in attitude away from the executives' attitudes were more pronounced at the University of Alberta than at M.I.T.

On 12 of the 15 scales for which change was observed at the University of Alberta, the M.B.A. students moved away from the executives' attitudes. Six of these changes were found to be significant. On the other three scales there was only a small movement towards the executives.

The M.B.A. students at M.I.T. moved away from the executives in their attitudes on 10 of the 14 scales for which change was observed. In four of these cases the movement was reported to be significant. On two of the other scales the movement towards the executives' attitudes was small. On the remaining two scales, dealing with classical management theory and faith in workers the M.I.T. students moved closer to the executives' attitude. In both these cases the change was found to be significant. However the direction of change was toward both the executives and the faculty. This is represented diagrammatically as follows:

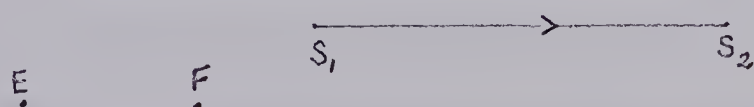


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Students' Attitudes Move Towards those of the Faculty. The M.B.A. students at the University of Alberta and M.I.T. started their programs a similar distance away from their faculties in attitude. The students changed their attitudes towards the faculty at both universities, although the change is more pronounced at M.I.T. The

students at the University of Alberta moved towards their faculty on 8 of the 15 scales for which change was observed. In four of these cases the movement was found to be significant. On three of the other scales the movement away from the faculty attitude was small. On the remaining scales dealing with union intervention in business, general cynicism, faith in workers, and cynicism about how to get ahead, the students moved away from both faculty and the executives. In the scales dealing with faith in workers and cynicism about how to get ahead the change was found to be significant. This change is represented diagrammatically as follows:



The students at M.I.T. moved towards their faculty on 9 of the 14 scales for which change was observed. In four of these cases the movement was reported to be significant. On three of the other scales the change away from the faculty was small while on the remaining two scales the movement was away from both the executives and the faculty, and in both cases the movement was reported to be significant.

The Change in Attitude of the M.B.A. Students at the University of Alberta Tended to be More Pronounced in the First Year than in the Second Year. On 15 of the 19 scales the first-year M.B.A. students at the University of Alberta changed their attitudes more than the second-year students. This difference was particularly noticeable on the scales dealing with the human relations aspects of management on which the first-year students moved significantly towards individuality. The second-years changed negligibly on all four scales which may reflect the fact that human relations courses are taught

in the second year of the program but not in the first year. The human relations courses have appeared to stop the movement towards individuality rather than change the students towards belief in group activities.

Values Held by the Executives, Faculty and M.B.A. Students at M.I.T. and at the University of Alberta

The Values Held by the Executives in the University of Alberta Study Tended to Differ from the Attitudes Held by the Executives in the M.I.T. Study. The Alberta executives were found to hold somewhat different attitudes from the executive in the M.I.T. study on 12 of the 19 scales. The executives at M.I.T. were much more strongly opposed to labour and government intervention in industry than the Albertan executives. This is probably due to the American belief in the freedom of private enterprise, which is not as strong in Canada.

The Albertan executives were found to be more cynical than the executives in the M.I.T. study on the scales dealing with:

- (1) business relations to society
- (2) amorality of managerial role
- (3) getting ahead in industry
- (4) conformity pressures existing in business.

The Albertan executives were more group-oriented than the M.I.T. executives particularly on the issues dealing with decision-making and interpersonal orientation.

Other differences in the executive bodies were:

- (1) The Albertan executives believed more in classical management theory than the M.I.T. executives.

- (2) The Albertan executives were less conservative than the M.I.T. executives.
- (3) The Albertan tended to favour small corporations and the individual's right to privacy within these corporations more than the M.I.T. executives.

Some of these results may be attributable to the fact that the executives in the Alberta study were from lower and middle-level management while the executives at M.I.T. are from the top-level management.

However the results seem to suggest that the Albertan executives feel the need for reform of business and its management and its relationships with its environment. A certain amount of uneasiness about big business, its effects on the individual, and its influence over the larger bargaining units in society, seems to exist more among the Albertan executives than the executives at M.I.T.

The Values Held by the Faculties at the University of Alberta and at M.I.T. Tend to Differ. The faculties at M.I.T. and the University of Alberta were found to be different on 12 of the 19 scales. Much the same kind of differences existed for the faculties as was noted for the executives in the previous discussion with the exception that the faculty at the University of Alberta tended to be less cynical about the nature of business on the issues concerning getting ahead and conformity pressures than the M.I.T. faculty. In addition the faculties had about the same beliefs on labour and government intervention in business although the M.I.T. faculty tended to favour unions more than the University of Alberta faculty.

Once again the Albertan group tended to favour the reform of industry more than the M.I.T. group, although the Albertan faculty seemed happier about individuals' current roles within industry than the Albertan executives.

The Values Held by the M.B.A. Students at the University of Alberta and M.I.T. did not Tend to Differ as much as the Faculty and the Executives. Although the values of the M.B.A. students (given by their initial attitudes) at the University of Alberta and at M.I.T. were found to be different on 12 of the 19 scales, the difference was not as pronounced as with the faculty and executive groups observed. As with the executives and the faculties the Albertan students tended to be more group oriented and less conservative than their counterparts at M.I.T. Little difference was found between the Albertan M.B.A. students and the M.I.T. M.B.A. students on the scales dealing with cynicism, and the other differences reflected less belief in classical management theories and a greater desire for individual privacy among the Albertan students.

As was found with the executives and the faculty, the M.B.A. students at the University of Alberta believed more in the need for changing the nature of business than the M.I.T. M.B.A. students.

The results show that, as a method of bringing about the desired changes in industry the M.B.A. students at the University of Alberta tend to favour both government intervention in industry, and the idea that corporations should appraise themselves and take a more responsible attitude towards their environment.

The Faculty and Executives at the University of Alberta Tended to Differ in the Same Manner as the Faculty and Executives at M.I.T.

The differences between the faculty and executives at both universities were found to be largely in the same direction, although the differences were less pronounced at the University of Alberta than at M.I.T.

At both universities the executives were more opposed to union and government intervention, more in favour of corporate responsibility in the community, more conservative, more in favour of traditional management principles and more in favour of using personal information about employees than the faculty. However, the Albertan executives exhibited more cynicism with respect to the faculty than the executives at M.I.T. In addition the Albertan executives showed less faith in workers, less belief in group decision-making and more belief in specialisation as a managerial attribute than the faculty. These differences were not observed at M.I.T.

Summary

The results at the University of Alberta confirmed the findings of Schein in his study on the M.B.A. students at M.I.T.¹:

- (1) Clear differences in attitude exist, on the scales used in the questionnaire, between the executives, the faculty and the M.B.A. students.
- (2) Students taking the M.B.A. program change their attitudes away from those held by the executives towards the attitudes

¹Edgar H. Schein, "Attitude Change During Management Education", Administrative Science Quarterly, Vol. II, Number 4, (March 1967), pp. 601-628.

held by the faculty.

Therefore, it has been shown that the faculty is successful in changing the values and beliefs of the M.B.A. students during the M.B.A. programs. It has also been shown that the faculty influence the students away from the values prevailing in industry, and attempt to instill their own values in the students.

In comparing the values of the executive, faculty and student groups at M.I.T. and at the University of Alberta, clear differences were found between the executive and faculty groups. The student groups differed also, but to a lesser degree than the executive and faculty groups. These differences tended to be in the same directions on each of the scales for each of the three groups of executives, faculty and students. This seems to suggest that the differences in values are due to the differences in the political and cultural settings of the groups.

LIMITATIONS OF THE STUDY

One of the limitations of this study is that it has not defined a desirable set of attitudes and values for the individual to acquire in preparation for managerial roles. Therefore it is not able to be determined whether the observed changes in attitudes of the M.B.A. students will make them better fitted for managerial roles. The question arises: Are the attitudes of the faculty more desirable than the attitudes prevailing in industry or does the difference in faculty and executive attitudes simply reflect the inexperience of some faculty members with the realities of managerial role?²

²Loc. cit.

Research into a desirable value system has been carried out in the fields of medicine, dentistry and law, but is lacking in the business area.³ Once a value system has been defined for the managerial profession it can be determined whether the attitude changes observed for the M.B.A. students are desirable, and also courses can then be constructed to direct students towards this value system.

Another limitation of this study is that it does not determine the degree of permanence of attitude change. If the faculty can change the students' attitudes towards their own attitudes in the short time of the M.B.A. program, it is equally likely that industry will be successful in changing these attitudes. Only the attitudes that have become internalised will be likely to remain with the student when he goes into industry. Schein states, however, that individuals are more likely to internalise attitudes adopted in situations where there is a free choice among alternatives, such as the university environment, than those adopted in situations where there is little choice.⁴ Therefore, attitudes are more likely to be internalised in the university setting than in the business setting.

It would, therefore, be desirable to obtain follow-up data from the students to test the permanence of the attitude changes and also to determine the extent to which industry is successful in changing the attitudes of individuals and on which issues they are most successful.

³Edgar H. Schein, "The Problem of Moral Education for the Business Manager", in Approaches to Education for Character, ed. by Clarence H. Faust and Jessica Feingold (New York: Columbia University Press), pp. 173-192.

⁴Edgar H. Schein, "Management Development as a Process of Influence", Industrial Management Review, (May 1961), pp. 59-77.

Another limitation of this study is that, because of the current loose definition of desirable attitudes, the executives may be changing their attitudes considerably over time. As the appropriate value system becomes more defined for the managerial profession the executive and faculty attitudes may approach each other and the two groups will work together towards preparing students for managerial roles.

APPENDIX A

BUSINESS MANAGEMENT STUDY POQ III

Instructions

This study examines certain attitudes concerning business, government, and society. The findings will be completely confidential. Do not write your name on this questionnaire.

Students are asked to complete Part I and Part III. Faculty members are asked to fill out Part II and Part III.

Part I and Part II are straightforward. Part III consists of a number of items dealing with various aspects of business management. Please indicate next to each item your degree of agreement or disagreement by writing the number 1, 2, 3 or 4.

- 1 means strong agreement
- 2 means mild agreement
- 3 means mild disagreement
- 4 means strong disagreement

Please try to be as frank as you can in giving your opinion. There are no right or wrong answers to any of the issues. We are trying to find out how people feel about the issues which are described in the items.

If any item makes no sense to you at all, or you genuinely have no opinion about an issue, leave it blank. But please try to give answers to as many of the items as possible.

PART I (for students)

1. Male _____ Female _____

2. Age _____

3. Marital Status

Single _____ Married _____

4. During the first 15 years of life, did you live mostly on a farm, mostly in a small town, mostly in a small city, or mostly in a big city or its suburbs?

- Mostly on a farm
- Mostly in a small town
- Mostly in a small city
- Mostly in a big city or suburbs

5. A. What is your religion or church preference?

Protestant
Catholic
Jewish
Greek Orthodox
Other
None
Don't know

B. If protestant, please specify:

Presbyterian
Lutheran
Baptist
United Church
Anglican
Methodist
Other
Don't know

C. Would you say you go to church regularly, often, seldom, never?

Regularly
Often
Seldom
Never

6. A. Where were you born (if in Canada, which province)? _____

B. If not in Canada, how long have you lived in Canada? _____

7. During the first 15 years of your life, which province of Canada did you grow up in? If not Canada, please specify.

8. What kind of work did your father do for a living while you were growing up? (Please specify) _____

9. What was the last year of school your father completed? _____

10. Where did your family (father) originally come from?

Great Britain	Germany
Ireland	Italy
United States	Hungary
France	Other
	Don't know

11. What is your father's ethnic origin?

English	Italian
Hungarian	German
American	Ukrainian
French	Other
	Don't know

12. Generally speaking do you usually think of yourself as a Conservative, Liberal, New Democrat, Social Credit or Independent?

Conservative	Social Credit
Liberal	Independent
New Democrat	Don't know

A. If Conservative, Liberal, New Democrat or Social Credit, would you call yourself a strong Conservative, Liberal, New Democrat, or Social Credit?

Strong
Weak
Don't know

B. If "Independent" or don't know do you think of yourself as closer to the Conservative Party, the Liberal Party, the New Democratic Party, or the Social Credit Party?

Conservative
Liberal
New Democratic
Social Credit
Don't know

13. Degrees held now.

Bachelor of Arts
Bachelor of Science
Bachelor of Education
Bachelor of Commerce
Bachelor of Science (Agriculture)
Bachelor of Physical Education
Other

14. In what year of graduate school are you?

First year
Second year
Third year
Fourth year

15. Are you a part-time student or full time?

Part time
Full time

PART II (for faculty)

1. Do you teach a graduate course?

Yes

No

2. What is your area of specialisation?

Accounting

Business Policy

Economics

Finance

Industrial Relations

Marketing

Operations Research

Organisational Behavior

Statistics

Other

PART III

1. Governmentally operated projects cannot compete with private enterprise because they are less efficient.
2. Group decisions are generally more conservative than what the leader of the group would have done had he decided alone.
3. The man who gets ahead in industry is the man who has someone sponsoring him.
4. Most industrial problems can be attributed to a few basic causes.
5. Most workers in industry can be trusted enough to be allowed to set their own production goals.
6. Government should be headed by men trained in business techniques and sympathetic to the cause of business.
7. Most consumers' products manufactured today have been designed to last only a few years.
8. In industry there must always be unity of command so that individuals will not be subjected to conflicting authority.
9. The man who gets ahead in industry is the man who knows the right people.
10. Private enterprise working through a market economy provides the most equitable distribution of society's goods and services.

11. Proper advertising can sell virtually any product.
12. The best way to get ahead in business is to move from organisation to organisation.
13. Corporations have a definite obligation to take a stand on political issues.
14. The quality of individual decisions is generally higher than the quality of group decisions.
15. Resistance to change is industry's major problem.
16. The private life of an employee should be of no direct concern to his company.
17. The good manager must be willing to compromise his own ethics and morals to some degree in order to get his job done.
18. The most important objective of a company is to allow for the maximum development of its employees as individuals.
19. A corporation with a good public image can sell even an inferior product.
20. The average worker in industry is capable of exercising self-control.
21. The most important objective of a company is to provide its stockholders with as high a return on their investment as is possible.
22. Corporations have a definite obligation to support liberal arts colleges.
23. Most organisations would be more effective if they used committees to make some of their decisions.
24. The primary purpose of a training program for college graduates should be to indoctrinate them with the organisation's basic philosophy, goals, and ways of doing things.
25. A small company is generally a more desirable employer than a large corporation because it offers greater opportunity for the individual to maximize his talents.
26. The good manager is willing to make decisions which will hurt others.
27. Corporations have a definite obligation to give money to charity.
28. Managers are not always sincere in their dealings with other people.

29. Nowadays it is more important for a manager to be loyal to his profession than to any given organisation.
30. The engineer in industry should give his primary allegiance to the company he works for, not the engineering profession as such.
31. The best kind of emotional relationship between a superior and a subordinate is an open one in which each party feels it can "level" completely with the other.
32. Management will usually do what is best for its employees without outside influence from unions.
33. The one most important factor contributing to a manager's advancement is his ability to get along with people.
34. The human relations-group dynamics approach in industry tends to stifle the individuality of employees.
35. The average employee's standard of living would not be what it is today had it not been for the efforts of labor unions on his behalf.
36. A large corporation is generally a more desirable employer than a small company since it offers security, regular advancement, and a wider selection of jobs.
37. The good manager should disregard the feelings of others in making decisions.
38. Government competition with private enterprise is unfair and should be eliminated.
39. Piece work systems are bad for company morale since they force competition between fellow workers.
40. The good businessman is basically a cold, calculating kind of person.
41. Most corporations do not have clear objectives which can serve as guides to executive decisions.
42. Industry's basic idea is to drive you as hard as it can and give you as little as possible.
43. A young man entering industry should be careful in selecting a wife to make sure she will fit into his career plans.
44. The average worker in industry prefers to avoid responsibility, has little ambition, and wants security above all.
45. Many employers think only of their profits and care little for their employees' welfare.

46. It is the tough, driving, impersonal man who really gets ahead in industry.
47. The "committee way of life" in an organisation often results in a good bit of wasted time.
48. The successful manager is a "jack of all trades and master of none".
49. Piece work systems are good for company morale because they stimulate high productivity.
50. Constant change and innovation is basically a good thing for society and its institutions.
51. One of the major reasons for the existence of company pension plans is that they insure the loyalty of the older employees.
52. Responsibility should never exceed authority because the individual cannot be held responsible for what he does not control.
53. The legal system of this country is generally slanted against big business.
54. Nowadays when industry hires a new manager his whole family should be screened as an indication of his potential for advancement.
55. Management will usually do what is best for its employees without outside influence from the government.
56. Managers usually deal with people in a democratic manner.
57. A man who is willing to work hard in industry does not need a union to protect him.
58. The good manager should rely on explanation and persuasion rather than direct orders.
59. To succeed in business one must be able to take criticism without being hurt by it.
60. The private life of an employee is properly a matter of direct concern to his company, for the two can never be completely segregated.
61. Most managers are delightful people to know socially.
62. A firm separation between staff and line functions is essential to efficient company performance.
63. Group incentive plans are superior to piece work systems in stimulating high productivity.

64. Most large corporations are placing more stress on the "corporation loyalty" of the employee than on his individual growth.
65. The most important objective of a company is to manufacture and sell products which are useful to society.
66. Managers often have to treat people unfairly to get their job done.
67. The man who gets ahead in industry is the man who knows how to "play politics".
68. Individual decisions cannot be as consistently sound as group decisions.
69. A corporation must be responsible for the health and welfare of its employees and their immediate families.
70. The one most important factor contributing to a manager's advancement is his ability to place the welfare of the company above that of his friends and colleagues.
71. The good manager should always be sensitive to the feelings of his subordinates.
72. Management is primarily a process of understanding and adapting to economic forces.
73. The more a young executive moves from job to job within a company, the greater will be his chance for success.
74. Many managers are suspicious of their business associates.
75. In business decisions, the human factor is usually more important than the economic factor.
76. Some degree of cynicism is a valuable attribute in a manager.
77. There are many sound principles of business which should not be changed even if economic and technological conditions change.
78. A wife's social grace and attractiveness play a significant role in her husband's rate of advancement.
79. The welfare of society is best achieved if all businesses pursue profit to the best of their ability.
80. A large corporation tends to suppress individual creativity.
81. "Price fixing", contract rigging, and other similar activities by leading Canadian business firms show that the Federal Government must take a more active role in the policing of private enterprise.

82. Corporations have a definite obligation to be actively involved in community affairs.
83. A clearcut hierarchy of authority and responsibility is the cornerstone of the business organisation.
84. Leadership skills can be acquired by most people, regardless of their particular inborn traits or abilities.
85. Religious teachings cannot be strictly observed in the business setting.
86. Present tax laws tend to stifle capital expansion by business more than they encourage it.
87. The average worker in industry has an inherent dislike of work and will avoid it if he can.
88. The successful manager is the one who becomes an expert in his own particular functions.
89. Large corporations create more opportunities than small companies for the individual to maximize his talent.
90. Strikes are usually caused by union leaders rather than rank-and-file members.
91. Most managerial jobs require a person to compromise his ethics or morals to some degree.
92. Compulsory arbitration should be instituted in vital industries such as the steel industry, to insure our country against work stoppages which jeopardize national defense.
93. It is the responsibility of business to insure that customers do not get inferior products.
94. The best way to get ahead in management is to have maximum experience in one field like finance, production, or marketing.

APPENDIX B

COMPOSITION OF SCALES BY ITEMS

An asterisk (*) indicates reverse scoring.

Cluster I: Business in Society

Scale 1. Management-Labour Relations

- 32. Management will usually do what is best for its employees without outside influence from unions.
- 57. A man who is willing to work hard in industry does not need a union to protect him.
- 28.* Managers are not always sincere in their dealings with other people.
- 35.* The average employee's standard of living would not be what it is today had it not been for the efforts of labor unions on his behalf.
- 45.* Many employers think only of their profits and care little for their employees' welfare.

Scale 2. Business-Government Relations

- 1. Governmentally operated projects cannot compete with private enterprise because they are less efficient.
- 6. Government should be headed by men trained in business techniques and sympathetic to the cause of business.
- 10. Private enterprise working through a market economy provides the most equitable distribution of society's goods and services.
- 38. Government competition with private enterprise is unfair and should be eliminated.
- 53. The legal system of this country is generally slanted against big business.
- 55. Management will usually do what is best for its employees without outside influence from the government.
- 86. Present tax laws tend to stifle capital expansion by business more than they encourage it.
- 79. The welfare of society is best achieved if all businesses pursue profit to the best of their ability.
- 81.* "Price fixing", contract rigging, and other similar activities by leading American business firms show that the federal government must take a more active role in the policing of private enterprise.
- 92.* Compulsory arbitration should be instituted in vital industries, such as the steel industry, to insure our country against work stoppages which jeopardize national defense.

Scale 3. Corporate Responsibility

- 13. Corporations have a definite obligation to take a stand on political issues.
- 22. Corporations have a definite obligation to support liberal arts colleges.
- 27. Corporations have a definite obligation to give money to charity.
- 69. A corporation must be responsible for the health and welfare of its employees and their immediate families.
- 82. Corporations have a definite obligation to be actively involved in community affairs.

Scale 4. Relations to Society

- 7.* Most consumers' products manufactured today have been designed to last not more than a few years.
- 11.* Proper advertising can sell virtually any product.
- 19.* A corporation with a good public image can sell even an inferior product.
- 65. The most important objective of a company is to manufacture and sell products which are useful to society.

Cluster II: General Cynicism

Scale 5. General Cynicism

- 26.* The good manager is willing to make decisions which will hurt others.
- 28.* Managers are not always sincere in their dealings with other people.
- 40.* The good businessman is basically a cold, calculating kind of person.
- 41.* Most corporations do not have clear objectives which can serve as guides to executive decisions.
- 42.* Industry's basic idea is to drive you as hard as it can and give you as little as possible.
- 45.* Many employers think only of their profits and care little for their employees' welfare.
- 46.* It is the tough, driving, impersonal man who really gets ahead in industry.
- 74.* Many managers are suspicious of their business associates.
- 76.* Some degree of cynicism is a valuable attribute in a manager.
- 32. Management will usually do what is best for its employees without outside influence from unions.

Scale 6. Amoralism of Managerial Role

- 17.* The hardest part of a manager's job is having to compromise his own ethics and morals in order to get his job done.
- 40.* The good businessman is basically a cold, calculating kind of person.
- 66.* Managers often have to treat people unfairly to get their job done.
- 91.* Most managerial jobs require a person to compromise his ethics or morals to some degree.
- 85.* Religious teachings cannot be strictly observed in the business setting.

Cluster III: Management Theory and Attitudes

Scale 7. Classical Management Theory

- 8. In industry there must always be unity of command so that individuals will not be subject to conflicting authority.
- 34. The human-relations -- group-dynamics approach in industry tends to stifle the individuality of employees.
- 52. Responsibility should never exceed authority because the individual cannot be held responsible for what he does not control.
- 83. A clearcut hierarchy of authority and responsibility is the cornerstone of the business organisation.
- 30. The engineer in industry should give his primary allegiance to the company he works for, not the engineering profession as such.

Scale 8. General Conservatism

- 4. Most industrial problems can be attributed to a few basic causes.
- 6. Government should be headed by men trained in business techniques and sympathetic to the cause of business.
- 47. The "committee way of life" in an organisation often results in a good bit of wasted time.
- 77. There are many sound principles of business which should not be changed even if economic and technological conditions change.
- 86. Present tax laws tend to stifle capital expansion by business more than they encourage it.

Scale 9. Change and "Cosmopolitanism"

- 12.* The best way to get ahead in business is to move from organisation to organisation.
- 15.* Resistance to change is industry's major problem.
- 29.* Nowadays it is more important for a manager to be loyal to his profession than to any given organisation.
- 50.* Constant change and innovation is basically a good thing for society and its institutions.
- 73.* The more a young executive moves from job to job within a company, the greater will be his chance for success.
- 80.* A large corporation tends to suppress individual creativity.
- 77. There are many sound principles of business which should not be changed, even if economic and technological conditions change.
- 30. The engineer in industry should give his primary allegiance to the company he works for, not the engineering profession as such.

Cluster IV: Attitudes Toward People and Groups

Scale 10. Faith in Workers

- 20. The average worker in industry seeks responsibility and is capable of exercising self-control.

- 84. Leadership skills can be acquired by most people, regardless of their particular inborn traits or abilities.
- 44.* The average worker in industry prefers to avoid responsibility, has little ambition, and wants security above all.
- 87.* The average worker in industry has an inherent dislike of work and will avoid it if he can.

Scale 11. Belief in Group Incentives

- 39. Piece work systems are bad for company morale, since they force competition between fellow workers.
- 63. Group incentive plans are superior to piece work systems in stimulating high productivity.
- 49. Piece work systems are good for company morale, because they stimulate high productivity.

Scale 12. Belief in Group Decision-Making

- 63. Group incentive plans are superior to piece work systems in stimulating high productivity.
- 68. Individual decisions cannot be as consistently sound as group decisions.
- 2.* Group decisions are generally more conservative than what the leader of the group would have done had he decided alone.
- 14.* The quality of individual decisions is generally higher than the quality of group decisions.
- 47.* The "committee way of life" in an organisation often results in a good bit of wasted time.

Scale 13. Interpersonal Orientation

- 75. In business decisions, the human factor is usually more important than the economic factor.
- 71. Sensitivity to the feelings of others is a definite asset to a manager.
- 26.* The good manager is willing to make decisions which will hurt others.

Cluster V: Individual-Organisational Relations

Scale 14. Right to Privacy

- 43. A young man entering industry should be careful in selecting a wife to make sure she will fit into his career plans.
- 60. The private life of an employee is properly a matter of direct concern to his company, for the two can never be completely segregated.
- 78. A wife's social grace and attractiveness play a significant role in her husband's rate of advancement.
- 54. Nowadays when industry hires a new manager, his whole family should be screened as an indication of his potential for advancement.
- 16.* The private life of an employee should be of no direct concern to his company.

Scale 15. Cynicism About How to Get Ahead

- 3.* The man who gets ahead in industry is the man who has someone sponsoring him.
- 9.* The man who gets ahead in industry is the man who knows the right people.
- 28.* Managers are not always sincere in their dealings with other people.

Scale 16. Cynicism About Conformity Pressures

- 42.* Industry's basic idea is to drive you as hard as it can and give you as little as possible.
- 64.* Most large corporations are placing more stress on the "corporation loyalty" of the employee than on his individual growth.
- 80.* A large corporation tends to suppress individual creativity.

Cluster VI: Miscellaneous

Scale 17. Specialisation versus General Skills

- 33. The one most important factor contributing to a manager's advancement is his ability to get along with people.
- 48. The successful manager is a "jack of all trades and master of none."
- 88.* The successful manager is the one who becomes an expert in his own particular functions.

Scale 18. Miscellaneous Management Beliefs

- 55. Management will usually do what is best for its employees without outside influence from the government.
- 56. Managers usually deal with people in a democratic manner.
- 57. A man who is willing to work hard in industry does not need a union to protect him.
- 58. The good manager should rely on explanation and persuasion rather than direct orders.
- 59. To succeed in business one must be able to take criticism without being hurt by it.
- 61. Most managers are delightful people to know socially.
- 63. Group incentive plans are superior to piece work systems in stimulating high productivity.
- 65. The most important objective of a company is to manufacture and sell products which are useful to society.

Scale 19. Corporate Size

- 89. Large corporations create more opportunities than small companies for the individual to maximize his talents.
- 36. A large corporation is generally a more desirable employer than a small company, because it offers security, regular advancement, and a wider selection of jobs.

Independent Items

18. The most important objective of a company is to allow for the maximum development of its employees as individuals.
21. The most important objective of a company is to provide its stockholders with as high a return on their investment as is possible.
24. The primary purpose of a training program for college graduates should be to indoctrinate them with the organisation's basic philosophy, goals, and ways of doing things.
31. The best kind of emotional relationship between a superior and a subordinate is an open one in which each party feels it can "level" completely with the other.
51. One of the major reasons for the existence of company pension plans is that they insure the loyalty of the older employees.
62. A firm separation between staff and line functions is essential to efficient company performance.
70. The one most important factor contributing to a manager's advancement is his ability to place the welfare of the company above that of his friends and colleagues.
72. Management is primarily a process of understanding and adapting to economic forces.
90. Strikes are usually caused by union leaders rather than rank-and-file members.
5. Most workers in industry can be trusted enough to be allowed to set their own production goals.
23. Most organisations would be more effective if they used committees to make some of their decisions.
25. A small company is generally a more desirable employer than a large corporation because it offers greater opportunity for the individual to maximize his talents.
37. The good manager should disregard the feelings of others in making decisions.
67. The man who gets ahead in industry is the man who knows how to "play politics."
93. It is the responsibility of business to insure that customers do not get inferior products.
94. The best way to get ahead in management is to have maximum experience in one field like finance, production, or marketing.

APPENDIX C

The data collected from the M.B.A. students at the University of Alberta upon entry to the M.B.A. program yielded the following profile.

TABLE C.1

BACKGROUND DATA FOR M.B.A. STUDENTS

SEX

Male	60	95%
Female	3	5%

AGE

21 and under	4	6%
22-24	18	29%
25-27	18	29%
28-30	13	20%
Over 30	10	16%

MARITAL STATUS

Single	27	43%
Married	36	57%

RELIGION

Protestant	29	47%
Catholic	7	11%
Other	6	10%
None	20	32%

PROTESTANT DENOMINATION

United	15	52%
Anglican	7	25%
Baptist	2	7%
Presbyterian	1	3%
Lutheran	1	3%
Methodist	1	3%
Other	2	7%

CHURCH ATTENDANCE

Regularly	8	13%
Often	6	10%
Seldom	26	44%
Never	20	33%

PLACE OF BIRTH

Alberta	22	35%
Saskatchewan	11	17%
Ontario	7	11%
B.C.	2	3%
Manitoba	2	3%
Quebec	1	2%
Overseas	18	29%

PROVINCE OF RESIDENCE DURING CHILDHOOD

Alberta	28	44%
Saskatchewan	10	16%
Ontario	6	9%
Manitoba	3	5%
B.C.	1	2%
Quebec	1	2%
Overseas	14	22%

FATHER'S OCCUPATION DURING CHILDHOOD

Manager	18	32%
Service	7	13%
Farmer	6	11%
Salesman	5	9%
Professional	4	7%
Clerical	4	7%
Craftsman	4	7%
Operative	3	5%
Labourer	2	4%
Unemployed	3	5%

FATHER'S EDUCATION

Grades 1-6	3	6%
Junior High	27	50%
Completed High School	11	20%
Some College	5	9%
College Grad	5	9%
Post Grad	2	4%
No Schooling	1	2%

POLITICAL AFFILIATION

Liberal	26	41%
Conservative	12	19%
Social Credit	3	5%
New Democrat	1	2%
Independent	10	16%
Not known	11	17%

STRENGTH OF AFFILIATION

Strong	16	38%
Weak	20	48%
Not known	6	14%

PARTY LEANING OF INDEPENDENTS

Liberal	8	38%
Conservative	2	9%
New Democrat	1	5%
Not known	10	48%

PREVIOUS DEGREE HELD

B.A.	19	30%
B.Sc.	17	27%
B. Comm.	16	25%
B.Sc. (Agriculture)	3	5%
B.Ed.	1	2%
Other	7	11%

Seven of these variables were taken and an attempt was made to relate them to the initial attitudes held by the students on commencing the M.B.A. program. These results, however were largely inconclusive. Significant differences in attitude are listed for each of the seven variables in Table C.2

TABLE C.2
BACKGROUND DATA IN RELATION TO INITIAL ATTITUDES
OF M.B.A. STUDENTS AT THE UNIVERSITY OF ALBERTA

1. Marital Status

<u>Scale Name</u>	<u>Single</u>	<u>Married</u>	<u>t-score</u>
1. <u>Management-Labour Relations</u> Low score means favouring freedom from labour intervention	2.63	2.92	2.37
6. <u>Amorality of Managerial Role</u> Low score means belief that one can be moral as a manager	2.01	2.38	2.61
17. <u>Specialisation vs General Skills</u> Low score means belief in general skills	2.52	2.27	2.02

2. Country of Childhood

<u>Scale Name</u>	<u>Overseas</u>	<u>Canada</u>	<u>t-score</u>
1. <u>Management-Labour Relations</u> Low score means favouring freedom from labour intervention	3.07	2.71	2.50
4. <u>Relations to Society</u> Low score means low cynicism	2.98	2.60	2.62
5. <u>General Cynicism</u> Low score means low cynicism	2.81	2.34	3.94

	<u>Overseas</u>	<u>Canada</u>	<u>t-score</u>
6. <u>Amorality of Managerial Role</u> Low score means belief that one can be moral as a manager	2.61	2.11	2.98
12. <u>Individual vs Group Decision-Making</u> Low score means belief in group decision-making	2.71	2.43	2.0
15. <u>Cynicism about how to get Ahead</u> Low score means low cynicism	2.86	2.42	2.94
16. <u>Cynicism about Conformity Pressure</u> Low score means low cynicism	2.93	2.27	3.80

3. Environment of Childhood

<u>Scale Name</u>	<u>Farm</u>	<u>Small Town</u>	<u>Small City</u>	<u>Big City</u>	<u>F-score</u>
9. <u>Change and Cosmopolitanism</u> Low score means belief in the value of stability and low career movement	2.33	2.55	2.50	2.68	3.83

4. Degree Held

<u>Scale Name</u>	<u>B.A.</u>	<u>B.Sc.</u>	<u>B. Comm.</u>	<u>F-score</u>
1. <u>Management-Labour Relations</u> Low score means favouring freedom from labour intervention	2.58	2.73	3.04	4.38

	<u>B.A.</u>	<u>B.Sc.</u>	<u>B. Comm.</u>	<u>F-score</u>
18. <u>Management Truisms</u> Low score means belief in the various items	2.24	1.99	2.52	8.84
19. <u>Corporation Size</u> Low score means favouring large cor- porations over small ones	2.16	2.76	2.75	5.73

5. Church Attendance					
<u>Scale Name</u>	<u>Regu- larly</u>	<u>Often</u>	<u>Seldom</u>	<u>Never</u>	<u>F-score</u>
6. <u>Amorality of Man- agerial Role</u> Low score means belief that one can be moral as a manager	1.63	2.03	2.43	2.17	6.49
14. <u>Right to Privacy</u> Low score means that employee should not have rights to privacy	2.30	2.97	2.92	3.06	3.77

6. Political Affiliation					
<u>Scale Name</u>	<u>Conser- vative</u>	<u>Liberal</u>	<u>Indepen- dent</u>	<u>Not Known</u>	<u>F-score</u>
3. <u>Corporate Res- ponsibility</u> Low score means belief in broad corporate responsi- bility	2.13	2.61	2.78	2.29	3.33
6. <u>Amorality of Man- agerial Role</u> Low score means belief that one can be moral as a manager	2.10	2.13	2.28	2.67	2.89

These results do not show any clear trends except that the overseas students showed a significantly higher degree of cynicism than the Canadian students on all of the scales dealing with cynicism.

APPENDIX D

TABLE D.1

TABLE OF MEAN SCORES FOR EXECUTIVES AND
FACULTY AT THE UNIVERSITY OF ALBERTA
GIVING RESULTS OF SIGNIFICANCE TESTS
FOR DIFFERENCES

Scale	Executives	Faculty	t-score
1	2.61	2.75	1.2
2	2.65	2.84	2.3 (*)
3	2.57	2.72	1.0
4	2.78	2.48	2.7 (*)
5	2.28	2.39	1.1
6	2.23	2.09	1.1
7	1.95	2.23	2.3 (*)
8	2.37	2.83	3.8 (*)
9	2.44	2.54	1.0
10	2.22	1.84	3.4 (*)
11	2.49	2.39	0.7
12	2.34	2.53	1.6
13	2.31	2.41	0.8
14	2.66	3.03	2.6 (*)
15	2.34	2.31	0.2
16	2.24	2.19	0.4
17	2.64	2.26	3.4 (*)
18	2.08	2.43	3.9 (*)
19	2.23	2.27	0.2

(*) indicates significance at the 0.05 level.

BIBLIOGRAPHY

BOOKS

- Brim, Orville G., and Wheeler, Staton. Socialisation After Childhood: Two Essays. New York: John Wiley and Sons, Inc., 1966.
- Cattell, Raymond B. The Scientific Analysis of Personality. Penguin Books Ltd., Middlesex, England: Richard Clay (The Chaucer Press) Ltd., 1965.
- Edwards, Allen L. Techniques of Attitude Scale Construction. New York: Appleton-Century-Crofts, Inc., 1957.
- Galtung, Johan. Theory and Methods of Social Research. Denmark: P. J. Schmidts Bogtrykkeri, Vojens, 1967.
- Hays, William L. Statistics for Psychologists. New York: Holt, Rinehart and Wilson, Inc., 1963.
- Katz, Daniel, and Kahn, Robert L. The Social Psychology of Organisations. New York: John Wiley and Sons, Inc., 1966.
- Merton, Robert K.; Reader, George G.; and Kendall, Patricia L., eds. The Student Physician. Massachusetts: Harvard University Press, 1957.
- Miner, John B. Studies in Management Education. New York: Springer Publisher Company, Inc., 1965.
- Murphy, Gardner, and Likert, Rensis. Public Opinion and the Individual. New York: Russell and Russell, 1938.
- Nie, Norman; Bent, Dale H.; and Hull, Hadlai. Statistical Package for the Social Sciences. Toronto: McGraw-Hill, 1970.
- Parsons, Talcott. Social Structure and Personality. London: Collier-MacMillan Ltd., 1964.
- Presthus, Robert. The Organisational Society. New York: Alfred A. Knopf, Inc., 1962.
- Thompson, James D. Organisations in Action. New York: McGraw-Hill Inc., 1967.
- Thurstone, L. L., and Chave, E. J. The Measurement of Attitude. Chicago: The University of Chicago Press, 1928.
- Walpole, Ronald E. Introduction to Statistics. New York: The MacMillan Company, 1968.

ARTICLES

- Fletcher, Colin. "On Replication: Notes on the Notions of a Replicability Quotient and a Generalisability Quotient". Sociology, Vol. 4, No. 1, (January 1970).
- Quarantelli, Enrico; Helfrich, Margaret; and Lutsky, Dale. "Faculty and Student Perception in a Professional School". Sociology and Social Research, 49, 1964.
- Schein, Edgar H. "Attitude Change During Management Education". Administrative Science Quarterly, Vol. 11, No. 4, (March 1967), pp. 601-628.
- Schein, Edgar H. "Management Development as a Process of Influence". Industrial Management Review, (May 1961), pp. 59-77.
- Schein, Edgar H. "The Problem of Moral Education for the Business Manager". Approaches to Education for Character. Edited by Clarence H. Faust and Jessica Feingold. New York: Columbia University Press, 1969, pp. 173-192.
- Thielens, Wagner P. "The Influence of the Law School Experience on the Professional Ethics of Law Students". Approaches to Education for Character. Edited by Clarence H. Faust and Jessica Feingold. New York: Columbia University Press, 1969, pp. 173-192.

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